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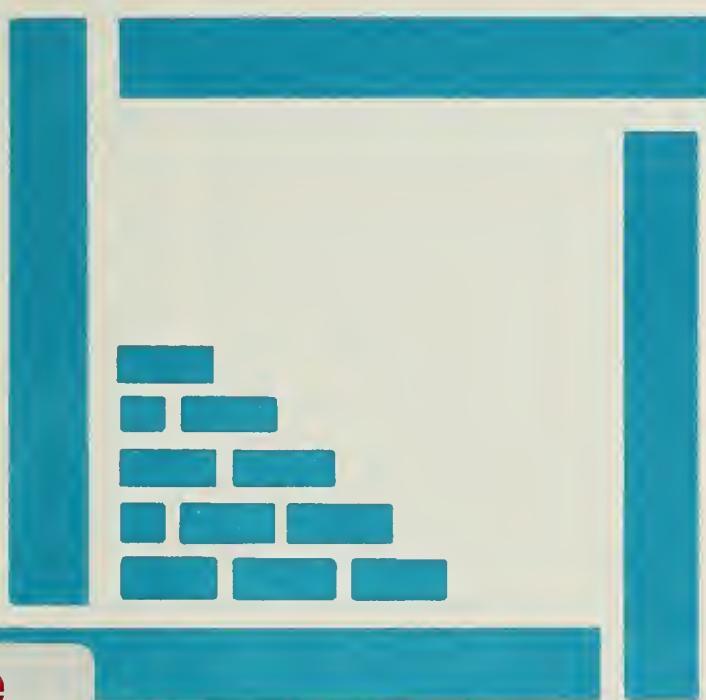
1987 Census of Construction Industries

CC87-I-6

INDUSTRY SERIES

Highway and Street Construction Contractors, Except Elevated Highways

Industry 1611



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ACKNOWLEDGMENTS

Many persons participated in the various activities of the 1987 Census of Construction Industries.

The overall planning and review of the census operations were performed by the staff of the Office of the Assistant Director for Economic and Agriculture Censuses.

This report was prepared in the Construction Statistics Division. **Barry A. Rappaport**, Assistant Division Chief for Industry Surveys, was responsible for the overall planning, management, and coordination of the census of construction industries. Planning and implementation were under the direction of **A. William Visnansky**, Chief, Census Operations Branch, with primary staff assistance by **Juliana Van Berkum**, **Barbara J. Hadden**, **Edward R. Glover**, **Susan L. Hostetter**, **Shirley M. Baker**, and **Carolyn J. Stone**. Under the direction of **Jesse Pollock**, **Edward K. Ricketts** and **Dennis K. Duke** developed the sampling plans and variance and estimation specifications.

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If you have any questions concerning the statistics in this report, call (301) 763-7546.

1987

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Issued January 1990



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INTRODUCTION

	Page
PURPOSE AND USES OF THE ECONOMIC CENSUSES.....	III
AUTHORITY AND SCOPE	III
AVAILABILITY OF THE DATA	III
WHAT'S NEW IN 1987	III
HISTORICAL INFORMATION	IV
AVAILABILITY OF MORE FREQUENT ECONOMIC DATA.....	IV
SOURCES FOR MORE INFORMATION	IV
CENSUS OF CONSTRUCTION INDUSTRIES—SCOPE AND CLASSIFICATION.....	IV
ESTABLISHMENT BASIS OF REPORTING.....	V
SAMPLE DESIGN, ESTIMATION PROCEDURES, AND RELIABILITY OF ESTIMATES	VI
CENSUS REPORT FORMS	VIII
DATA PROCESSING	VIII
GEOGRAPHIC CLASSIFICATION	VIII
DUPLICATION IN VALUE OF CONSTRUCTION WORK	VIII
SPECIAL TABULATIONS.....	VIII
COMPARABILITY OF CENSUS OF CONSTRUCTION INDUSTRIES DATA WITH OTHER DATA	IX
ABBREVIATIONS AND SYMBOLS	IX

PURPOSE AND USES OF THE ECONOMIC CENSUSES

The economic censuses are the major source of facts about the structure and functioning of the Nation's economy. They provide essential information for government, business, industry, and the general public.

Economic censuses furnish an important part of the framework for such composite measures as the gross national product, input-output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions.

Policy-making agencies of the Federal Government use the data, especially in monitoring economic activity and providing assistance to business.

State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.

Trade associations study trends in their own and competing industries, and keep their members informed of market changes.

Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

AUTHORITY AND SCOPE

Title 13 of the United States Code (sections 131, 191, and 224) directs the Census Bureau to take the economic censuses every 5 years, covering years ending in 2 and 7. The 1987 Economic Censuses consist of the—

- Census of Retail Trade
- Census of Wholesale Trade
- Census of Service Industries
- Census of Transportation
- Census of Manufactures
- Census of Mineral Industries
- Census of Construction Industries

Special programs also cover enterprise statistics and minority-owned and women-owned businesses. (The 1987 Census of Agriculture and 1987 Census of Governments are conducted separately.) The next economic censuses are scheduled to be taken in 1993 covering the year 1992.

AVAILABILITY OF THE DATA

The results of each of the economic censuses are available in printed reports, for sale by the U.S. Government Printing Office, and on microfiche, computer tape, compact discs with read-only memory, and flexible diskettes, for sale by the Census Bureau. Order forms for all types of products are available on request from Customer Services, Census Bureau, Washington, DC 20233. A more complete description of publications being issued from this census is on the inside back cover of this document.

Census facts are also widely disseminated by trade associations, business journals, and newspapers. Volumes containing census statistics are available in most major public and college libraries. Finally, State Data Centers in every State and Business and Industry Data Centers in many States also supply economic census statistics.

WHAT'S NEW IN 1987

Several changes have taken place for the 1987 censuses. Data will be reported on the basis of the newly revised Standard Industrial Classification (SIC) system with selected reports including "bridge tables," linking the old and new classification systems. A new set of metropolitan

areas has been adopted, and more detailed information will be available for businesses with no paid employees. For additional information on these changes, review the subsequent text.

One important change involves receipts of contractors and builders. Prior to 1987, the Census of Construction Industries collected receipts as the primary measure of construction activity. For 1987, the census collected the "value of construction work done" to better measure actual construction activity done during the year. Differences between the two concepts occur when work is done in one year and payment received either from the prior or in the succeeding year. In addition, receipts do not include work a contractor performs for its own account and use.

HISTORICAL INFORMATION

The economic censuses have been taken together as an integrated program at 5-year intervals since 1967, and before that for 1963, 1958, and 1954. Prior to that time, the individual censuses were taken separately at varying intervals.

The economic censuses trace their beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for 1840 and subsequent censuses to include mining and some commercial activities. In 1902, Congress established a permanent Census Bureau and directed that a census of manufactures be taken every 5 years. The 1905 manufactures census was the first time a census was taken apart from the regular every-10-year population census.

The first census of business was taken in 1930, covering 1929. Initially it covered retail and wholesale trade, and construction industries, but it was broadened in 1933 to include some of the service trades.

The 1954 economic censuses were the first to be fully integrated—providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. These were the first censuses to be taken by mail, using lists of firms provided by the administrative records of other federal agencies. Since 1963, administrative records have also been used to provide basic statistics as well for very small firms, reducing or eliminating the need to send them census questionnaires. The Enterprise Statistics Program, which publishes combined data from the economic censuses, was made possible with the implementation of the integrated census program in 1954.

The range of industries covered in the economic censuses has continued to expand. The Census of Construction Industries began on a regular basis in 1967, and the scope of service industries was broadened in 1967, 1977, and 1987. The Census of Transportation began in 1963 as a set of surveys covering travel, transportation of commodities, and trucks. New for 1987 are publications reporting on business establishments engaged in several transportation industries, paralleling the data on establishments in

other sectors. This is part of a gradual expansion in coverage of industries previously subjected to government regulation. The Survey of Minority-Owned Business Enterprises was first conducted as a special project in 1969 and was incorporated into the economic censuses in 1972 along with the Survey of Women-Owned Businesses.

Economic censuses have also been taken in Puerto Rico since 1909, in the Virgin Islands and Guam since 1958, and in the Northern Mariana Islands since 1982.

Statistical reports from the 1982 and earlier censuses provide historical figures for the study of long-term time series, and are available in some large libraries. All of the census data published since 1967 are still available for sale on microfiche from the Census Bureau.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

While the censuses provide complete enumerations every 5 years, there are many needs for more frequent data as well. The Census Bureau conducts a number of monthly, quarterly, and annual surveys, the results of which appear in publication series such as *Current Construction Reports* (building permits, housing starts, and value of new construction put in place), *Current Business-Reports* (retail and wholesale trade and service industries), the *Annual Survey of Manufactures*, *Current Industrial Reports*, and the *Quarterly Financial Report*. Most of these surveys, while providing more frequent observations, yield less kind-of-business and geographic detail than the censuses. The *County Business Patterns* program offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1987 Economic Censuses and Related Statistics*. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1987 Economic Censuses*. Contact Customer Services for information on availability.

CENSUS OF CONSTRUCTION INDUSTRIES—SCOPE AND CLASSIFICATION

The 1987 Census of Construction Industries covers all employer establishments (establishments with payroll) primarily engaged in contract construction, construction on their own account for sale, or in subdividing real property

into lots as defined in the 1987 Standard Industrial Classification (SIC) Manual.¹ This industrial classification system has been developed by experts on classification in government and private industry under the guidance of the Office of Management and Budget and is in general use among government agencies and among organizations outside the government.

Contract construction—The SIC manual defines construction in three broad types of activity that follow:

- 1. Building construction by general contractors or by operative builders**- General building contractors are primarily engaged in the construction of dwellings, office buildings, stores, farm buildings, and other building projects. Operative builders who build on their own account for sale are also included here. However, investment builders who build structures on their own account for rent are classified in Real Estate.
- 2. Heavy construction general contractors**—Heavy construction general contractors are primarily engaged in the construction of highways, bridges, pipelines, sewers and water lines, marine construction, power, and petro-chemical plants and other nonbuilding construction projects. Special trade contractors are classified in heavy construction if they are specifically engaged in the following activities: grading for highway and airport runways; guardrail construction; installation of highway signs; asphalt and concrete construction of roads, highways, streets and public sidewalks; trenching, cable laying; conduit construction; underwater rock removal; pipeline wrapping; or land clearing and leveling.
- 3. Construction by other special trade contractors**—These contractors include plumbers, painters, carpenters, electricians, brick layers, roofers, etc. For the most part, they perform their work at the site of construction, although they may also have shops where they perform work incidental to the job site.

General contractors in both the building and the heavy construction field usually assume responsibility for an entire construction project, but may subcontract to others all of the actual construction work or those portions of the project requiring special skills or equipment. Special trade contractors may work for general contractors, for other subcontractors, or may work directly for the owner of the property.

In addition to the industries classified in the SIC manual as Construction, this census also includes one industry

classified in the Real Estate area, SIC 6552, Land Subdividers and Developers, Except Cemeteries. These establishments are engaged in subdividing real property into lots and in developing it for sale on their own account.

Each establishment receiving a questionnaire was requested to report the percent of total dollar value of business done for each kind-of-business activity engaged in during 1987. This information was used for the computer assignment of appropriate industry classifications. During this work, various tests were also made using other data reported on the questionnaire. The proportion of construction work to total business was checked to verify that the establishment was primarily in construction. Also taken into consideration were the types of structures worked on during the year and the extent of work undertaken for other contractors.

Construction establishments often engage in various construction activities. It is necessary, however, to assign a single industry code to the establishment based on its major activity. Therefore, the statistics shown for an industry reflect not only the primary activity of the establishments in the industry, but also their secondary activities. The industry reports, however, do present data on the extent of secondary activities.

A revised edition of the SIC Manual was issued in 1987. Minor modifications were made to three industries in the construction sector: SIC 1611, Highway and Street Construction Contractors, Except Elevated Highways; SIC 1629, Heavy Construction Contractors, N.E.C.; and SIC 1771, Concrete Work Special Trade Contractors. The extent of these modifications are explained in the specific texts for those industries. "Bridge tables" are also included showing selected data tabulated using both the previous classification system and the 1987 revision.

ESTABLISHMENT BASIS OF REPORTING

The census of construction industries is conducted on an establishment basis. A "construction establishment" is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such "establishment" activities include, but are not limited to estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each such establishment operated during all or any part of 1987. The census of construction industries figures represent a summary of records for individual establishments rather than for companies. The census tabulations, therefore, differ from those prepared on a company basis.

¹Standard Industrial Classification Manual: 1987. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.

If an establishment engaged in construction and one or more distinctly different lines of economic activity (wholesale or retail trade, service, manufacturing, mining, etc.) at the same place of business, it was requested to file a separate report appropriate to each activity, provided that the activity was of substantial size and separate records were maintained or substantially accurate estimates could be prepared.

If a separate establishment report could not be prepared for each activity, then a construction report was requested covering all activities of that establishment providing that the 1987 value of construction work exceeded the gross receipts from each of its other activities.

Construction businesses with no payroll during 1987 (nonemployers) were not required to file census reports. Tabulation of data for these businesses are based on administrative records and are shown only in U.S. summary publications and the geographic area reports series. Refer to the section on "Sample Design" for details. Foreign construction activities were not included in this census.

SAMPLE DESIGN, ESTIMATION PROCEDURES, AND RELIABILITY OF ESTIMATES

The companies included in the 1987 Census of Construction Industries were identified as part of an operation common to all 1987 Economic Censuses. Construction companies were divided into employers (companies with payroll) and nonemployers (companies without payroll). Statistical information for the employers was obtained in the census by a survey which included all medium size and large employers and a sample of the smaller ones. Census reports were not required from the nonemployers. Statistics on them were obtained from administrative records of other agencies of the Federal Government.

Employer Companies

Developing the sampling frame for employer companies—This operation started with obtaining a list of all construction companies in the active records of the Internal Revenue Service (IRS) which were subject to payment of Federal Insurance Contributions Act taxes. The basic source for this list has been the Internal Revenue Service Business Master File, a comprehensive list of companies engaged in business activities in the United States. The file contains the name, address, and form of ownership of each company and also indicates whether or not the company is subject to the FICA. Each company in this file is assigned a unique employer identification (EI) number which it uses in filing its various reports with the IRS. The Social Security Administration (SSA) maintains a similar list using the same identification numbers, which also contains information on the industrial classification of each company. The Bureau of the Census obtained both of these lists and combined them.

Under special arrangements which safeguarded the confidentiality of the information, the Bureau also obtained administrative records data on payrolls and receipts and added these data to the combined list. The list, thus created from the IRS-SSA information, was a list of employer companies. However, for the 1987 Economic Censuses the basic reporting unit is the "establishment." Therefore, steps were taken to identify the individual establishments of those companies which operate more than one place of business. The information for making this determination was obtained by means of the Company Organization Survey (COS), an annual canvass of all known multiestablishment companies and large single-establishment companies. Thus, the 1987 Economic Census list for single-establishment employer companies was obtained from the IRS-SSA, but the list of establishments of multiestablishment employer companies was obtained directly from those companies in the COS. Refer to the section on "Establishment Basis for Reporting" for details.

In general, the IRS-SSA list provided sufficient industrial classification data to assign a company to the proper economic census, but there were a number of companies for which this information was inadequate or unavailable. A special form, NC-9923, General Schedule, was mailed to all such companies, requesting information on the nature of the company's activities. From the information reported, the company was given an industrial classification code and assigned to the appropriate economic census. Since construction companies found in this way were identified only after the regular census mailing had taken place, they were treated as a supplement to the basic list.

Selecting the employer sample—The sample was designed to provide reliable State and metropolitan area estimates for each construction industry. It consisted of all construction establishments in multiestablishment companies, all single-establishment companies with estimated total employment of 20 employees or more, and a probability sample of single-establishment companies with estimated employment of fewer than 20 employees.

Supplementing the sample were construction companies identified from the NC-9923, General Schedule. Also affecting the sample were the misclassified companies; i.e., companies included in the samples of other trade areas which reported they were construction companies and companies originally classified in construction which reported they were not construction companies.

Of the 533,000 single-establishment employer companies initially classified as construction companies, 147,000 were included in the sample. All of the 13,000 establishments of multiestablishment companies were included in the sample. There was a net increase in the sample of 60,000 establishments resulting from establishments originally unclassified (receiving the NC-9923) or misclassified.

The probability sample of the smaller single-establishment companies was a stratified random sample. Strata were formed from all establishments with the same initial four-digit SIC code, in the same State, in the same metropolitan

area or in the balance of the State, and in the same size class based on estimated total employment. If the four-digit SIC code for an establishment was incomplete, the establishment was placed in a stratum for miscellaneous companies. Because they were small, all companies were included in the sample for the following three industries: SIC 1622, Bridge, Tunnel, and Elevated Highway Construction Contractors; SIC 1795, Wrecking and Demolition Work Special Trade Contractors; and SIC 1796, Installation or Erection of Building Equipment Special Trade Contractors.

Estimation procedures for 1987 and 1982 data— Since all larger employer companies and some smaller ones were included in the census, sample estimation was required only for the universe of companies not selected with certainty. The published statistics are the totals of the estimates for the sampled companies and the aggregates for the certainty companies. All estimates for 1987 and 1982 published here are simple unbiased estimates of the form:

$$x'_c = \frac{\sum x_i / p_i}{n_c}$$

$$i = 1$$

where: x'_c is the simple unbiased estimate of a characteristic for a publication cell.

x_i is the reported value of a characteristic for an individual establishment in the publication cell.

p_i is the selection probability of that firm.

n_c is the number of firms in the sample for the cell.

Data for certain characteristics were reported as a percentage of the dollar value of business done. Before this formula was applied to those characteristics, it was necessary to convert the reported percentages into dollars.

Reliability of employer statistics— Since the estimates for employer establishments in these reports are based on the samples, they are subject to sampling variability and may be expected to differ from results which would have been obtained if a complete census had been taken using the same forms and procedures. The sampling errors shown in the tables were estimated directly from the sample reports, using methods appropriate for the sample design and form of estimation used.

The relative standard error is a measure of sampling variability, i.e., the variation that might occur by chance because only a sample of the population is surveyed. As calculated for this report, the relative standard error also partially reflects the effect of random errors of response and processing, but it does not take into account the effect of any consistent biases due to those types of errors. The chances are about 68 out of 100 that an estimate from the

sample would differ from a complete census by less than the relative standard error. The chances are about 95 out of 100 that the difference is less than twice the relative standard error and about 99 out of 100 that it is less than 2-1/2 times the relative standard error. Individual estimates with large relative standard errors have been shown in the published tables. Any such estimates should be used with caution. The very large relative standard errors generally occur for the smaller estimates.

Relative standard errors have been calculated for all of the published statistics, although they are shown for each statistic only in the tables presenting detailed statistics. Other tables show relative standard errors only for certain characteristics because of lack of space.

As calculated for this report, the relative standard error measures certain nonsampling errors, but does not measure any systematic biases in the data. Bias is the difference, averaged over all possible samples with the same size and design, between the estimates and the true value being estimated. Nonsampling errors can be attributed to many sources: inability to obtain information about all cases in the sample; definitional difficulties; differences in interpretation of questions; inability or unwillingness of respondents to provide correct information; and errors made in processing the data. Although no direct measurements of the biases have been obtained, it is believed that most of the important response and operational errors were detected in the course of reviewing the data for reasonableness and consistency.

A potential source of bias is in the imputation for those establishments that have not responded by the time of final publication. Data were estimated for establishments that did not report by that date, although selected establishments were contacted again to obtain as much information on the telephone as possible. Some publication cells in which more than 40 percent of the data were not reported have been suppressed.

Nonemployer Companies

As described earlier, the information derived from the business income tax returns of all companies was matched to the census employer file on the basis of common identification numbers. Those business income tax returns which could not be matched, were further classified on the basis of several characteristics. Returns with characteristics consistent with companies without payroll were treated as nonemployers. The nonemployer construction companies were not required to file census reports.

For "number of establishments," each separate income tax return was assumed to be an establishment. "All business receipts" was based on receipts information reported on the tax return.

Since no sampling was involved in the nonemployer establishments, the statistics for nonemployers are not subject to sampling variability. However, these data are subject to an unknown amount of reporting and processing errors which could not be detected by the Census Bureau.

CENSUS REPORT FORMS

Information for the 1987 Census of Construction Industries was obtained from employer establishments primarily through the use of twenty-four questionnaires, determined by industry classification and size. Standard forms and short forms were developed for each of the following SIC groups: 15, 16, 171, 172, 173, 174, 175, 176, 177, 178, and 179 and for the establishments classified in SIC 6552. Establishments with 50 or more employees all received the standard form. A sub-sample of establishments with fewer than 50 employees received short forms instead of the standard forms. The short forms covered only major items and omitted some of the detail found in the longer forms.

In reviewing and developing the questionnaires, comments and recommendations were elicited from construction trade associations and appropriate advisory groups. The Bureau surveyed several thousand firms representing all economic activities to gain insight into the way companies maintain records and to see whether new information could be collected.

DATA PROCESSING

The 1987 census report forms were mailed out in December 1987. They were mailed from and returned to the Census Bureau's Data Preparation Division in Jeffersonville, Ind., where routine editing and coding of the report forms were also accomplished. Collection of these report forms was essentially completed in July 1988.

The returned reports underwent extensive processing. A preliminary edit done at the time of data entry identified obviously deficient reports and reports needing clarification. When necessary, these problems were resolved by further contact with the respondents. Next, the data were transmitted to Census Bureau headquarters near Washington, DC.

Data records, then, underwent a detailed computer review and analysis. The records containing significant problems were referred for further analytical review and, if necessary, contacts were made with the respondents. The computer performed most classification coding (such as industry coding, geographic coding, and size coding), and imputation for missing items or for reports not received in time for tabulation. The imputation was performed on an industry (or industry group)-State (or geographic group) basis using all available response and administrative data.

The data records were then tabulated on an industry basis. Industry totals were subjected to analytical review, and selected statistics were prepared for the preliminary reports. Corrections resulting from this review were made to the computer records and final tabulations were produced.

The review of a preliminary report for an industry often uncovered the need for corrections or revisions to the data for another industry for which a preliminary report had already been published. The final reports incorporate all

revisions and corrections made during the review of the preliminary reports and contain considerably more data than were published in those reports.

GEOGRAPHIC CLASSIFICATION

Information for the 1987 Census of Construction Industries' final industry report series is classified on the basis of two types of geographic distributions: (1) physical location of the establishment, and (2) location of construction work. A separate code was assigned on each basis allowing us to present data by both physical locations of the establishment and location of construction work.

The geographic area reports series presents similar data by industry for each State (physical location of the establishment) and for selected MSA's, CMSA's and PMSA's.

DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the several industry, geographic area, or other groupings in this census, contains varying amounts of duplication, since the construction work of one firm may be subcontracted to other construction firms and also be included in the subcontractors' value of construction work. To avoid this duplication, a "net" value of construction work figure has been derived for each establishment by subtracting the costs for construction work subcontracted to others from the value of construction work.

Duplication in value of business between other construction and nonconstruction industries, results from the use of products of these other industries as input materials by construction establishments. "Value added," avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or areas. "Value added," is defined in the 1987 Census of Construction Industries as equal to dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels. However, for SIC 6552 and SIC 1531 where land receipts are significant, land receipts are also subtracted from dollar value of business done.

SPECIAL TABULATIONS

Special tabulations of data collected in the 1987 Census of Construction Industries may be obtained on computer tape or in tabular form. The data will be in summary form and subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) as are the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact and detailed specifications of the type and format of the data to be provided, should be directed to the Chief, Construction Statistics Division, Bureau of the Census, Washington, DC, 20233.

To discuss a special tabulation before submitting specifications, call 301-763-7546.

COMPARABILITY OF CENSUS OF CONSTRUCTION INDUSTRIES DATA WITH OTHER DATA

Data contained in the reports of the 1987 Census of Construction Industries are not the same as the data published in the Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity, whereas the construction census figures cover both new construction and maintenance and repair work done by establishments classified in the construction industry. Significant amounts of construction are done by establishments classified outside of construction (in real estate, manufacturing, utilities and communications, for example), both as "force account" construction and construction done for others. In addition, the value in place series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in the Census of Construction.

Data contained in the reports of the census of construction industries may also differ from industry data in "Employment and Earnings Statistics," published by the Bureau of Labor Statistics, and "Statistics of Income," published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

*	Sampling error exceeds 40 percent.
**	Represents the sum of all employees during pay periods including 12th of March, May, August, and November, divided by 4.
-	Represents zero.
†	Represents value of construction work less costs for construction work subcontracted to others. (See Duplication in Value of Construction Work.)
††	Represents dollar value of business done less costs for construction work subcontracted to others, and costs for materials, components, supplies, and fuels. In SIC's 1531 and 6552, land receipts are also subtracted from dollar value of business done. (See Duplication in Value of Construction Work.)
(D)	Withheld to avoid disclosing data for individual companies; data are included in higher level totals.
(NA)	Not available.
(S)	Withheld because estimate did not meet publication standards on the basis of either the response rate, associated relative standard error, or a consistency review.
(W)	Greater than zero but less than 1 percent.
(X)	Not applicable.
n.s.k.	Not specified by kind.

Users' Guide for Locating Statistics in This Report by Table Number

Statistics	For U.S.	By State	By employment size	By size class of dollar value of business done	By type, class, ownership, kind of business, and location of construction ¹	By specialization in types of construction
Assets and depreciation (gross book value):						
Beginning of year—buildings, machinery and equipment.....	3					
End of year—total.....	1, 3	1	5	6		
End of year—buildings, machinery and equipment.....	3					
Depreciation charges during year— buildings, machinery and equipment.....	3					
Capital expenditures:						
Total capital expenditures	1, 3	1	5	6		
New buildings—machinery and equipment	3					
Used buildings—machinery and equipment.....	3					
Communication services, costs for	2					
Employees:						
All employees—average number	1, 2	1	5	6		
Construction workers—average number.....	1, 2, 9	1, 9				8
Other employees—average number	2					
Employer costs for fringe benefits—legally required and voluntary expenditures	2					
Establishments—number in business during year	1, 2, 4, 9	1, 9	5	6		8
Hours—construction workers:						
Total.....	1, 2, 9	1, 9	5	6		
Quarterly	2, 9	9				
Inventories	4					
Materials, components, supplies, and fuels—costs for	1, 2	1	5	6		
Payroll:						
First quarter, all employees.....	2					
Annual:						
All employees.....	1, 2	1	5	6		
Construction workers	1, 2	1				8
Other employees	2					
Power, fuels, and lubricants—costs for.....	2					
Proprietors and working partners	2					
Ratios, State.....	13	13				
Value and receipts:						
Dollar value of business done, total	2		5	6		
Value of construction work, total	1, 2, 4	1	5	6	2, 7, 10	8
For work subcontracted in from others.....	2					
Other business receipts and land receipts ²	2					
Net value of construction work.....	1, 2	1	5	6		8
Value added.....	1, 2	1	5	6		8
Rental costs:						
Total.....	1, 2	1	5	6		
For machinery and equipment	2					
For buildings.....	2					
Repairs to buildings and other structures.....	2					
Repairs to machinery and equipment	2					
Selected industry ratios	12					
Subcontract work to others, costs for.....	1, 2	1	5	6		8

Note: Data for 1982 and earlier years are also available in some of these tables.

¹Type—buildings, roads, etc. Class—new construction; additions, alterations, or reconstruction; or maintenance and repair work. Ownership—private or government owned.

²Land receipts are shown separately for SIC's 1531 and 6552 only.

CONTENTS

Highway and Street Construction Contractors, Except Elevated Highways

[Page numbers listed here omit the prefix that appears as part of the number of each page]

	Page
Introduction -----	III
Users' Guide for Locating Statistics in This Report by Table Number -----	X
Summary of Findings -----	2

FIGURES

1. Value of Construction Work by Type of Construction -----	3
2. Selected Costs Per Dollar Value of Business Done -----	3

TABLES

Statistics for Establishments With Payroll

1. General Statistics by State: 1987 and 1982 -----	4
2. Detailed Statistics: 1987 and Earlier Census Years -----	6
3. Assets, Capital Expenditures, and Depreciation: 1987 and 1982 -----	7
4. Value of Inventories: 1987 and 1986 -----	8
5. Selected Statistics by Employment Size Class: 1987 and 1982 -----	8
6. Selected Statistics by Size Class of the Dollar Value of Business Done: 1987 and 1982 -----	9
7. Value of Construction Work by Type of Construction: 1987 and 1982 -----	10
8. Selected Statistics by Specialization in Types of Construction: 1987 -----	11
9. Quarterly Construction Worker Hours and Employment by State: 1987 -----	12
10. Value of Construction Work by Location of Construction Work: 1987 and 1982 -----	14
11. Dollar Value of Business Done by Kind of Business Activity: 1987 and 1982 -----	15
12. Selected Industry Ratios: 1987 and 1982 -----	16
13. Selected Industry Ratios by State: 1987 -----	17

Statistics for Establishments Without Payroll appear in the U.S. Industry Summary Report.

APPENDICES

A. Explanation of Terms -----	A-1
B. Standard Industrial Classification Titles for Industry Groups and Industries -----	B-1
C. Geographic Divisions and States -----	C-1

Publication Program -----	Inside back cover
---------------------------	-------------------

SUMMARY OF FINDINGS

Establishments classified in this industry are primarily engaged in the construction of roads, streets, alleys, sidewalks, guardrails, parkways, and airports. For additional examples, refer to the 1987 Standard Industrial Classification (SIC) Manual published by the Office of Management and Budget, Executive Office of the President.

During 1987, the establishments with paid employees classified in this industry accounted for \$35.5 billion in total dollar value of business. Of this amount, \$34.2 billion were for the value of construction work. These establishments paid out \$11.1 billion for materials, components, and supplies, and \$6.2 billion for construction work subcontracted to others. Costs for selected power, fuels, and lubricants for this industry were \$1.2 billion. Value added for 1987 was \$17.1 billion.

There were 10,986 establishments with total employment averaging 284,380 during the year. Total payroll for 1987 was \$7.0 billion. Total hours worked by construction workers during the year were 439 million hours.

Larger establishments with 20 employees or more, while representing only 30 percent of the total number of employer establishments in this industry accounted for 85 percent of all business done.

The content of this industry has been changed in the 1987 revision of the SIC Manual. Contractors primarily engaged in the construction of athletic fields, bridle paths, golf courses, tennis courts, trails, and trailer camps are

now classified in Industry 1629, Heavy Construction Contractors, Not Elsewhere Classified. Those primarily engaged in culvert or curb construction are now classified in Industry 1771, Concrete Work Special Trade Contractors. Selected data were tabulated using both the previous classification system and the 1987 revision and are shown in the table below.

A "construction establishment" is defined as a relatively permanent office, or other place of business, where the usual business activities related to construction are conducted. A separate census report was required from each sampled establishment covering domestic operations. Separate reports were not, however, required for each project or construction site.

In 1987, the value of construction work was collected to better measure actual construction activity done during the year. Construction receipts, as reported in earlier censuses, may have included the value of work done before or after the calendar year and may have excluded the value of work in progress during the calendar year. Receipts may have also excluded work done by builders engaged in construction for sale on their own account or for their own use. All dollar values are shown in current dollars for the years specified and have not been adjusted for inflation.

The data in this report are estimated from a sample survey and are subject to sampling variability as well as errors of response and nonreporting. The relative standard error shown in the tables is a measure of sampling variability. Descriptions of the sampling, estimating procedures, and data reliability are included in the Introduction.

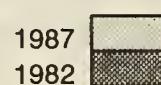
1987 Data Showing the Distribution of the Old Classification Based on the New Classification

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Industry	Number of establishments	All employees**	Payroll, all employees	Value of construction work	Net value of construction work†	Value added††	Capital expenditures other than land
Old Industry 1611, Highway and Street Construction	11 694	294 979	7 255 022	35 068 634	28 760 132	17 616 067	1 380 815
New Industry 1629, Heavy Construction	456	5 459	116 248	535 782	429 253	276 397	17 944
New Industry 1771, Concrete Work	251	5 139	97 664	371 425	347 039	220 036	8 945
New Industry 1611, Highway and Street Construction	10 986	284 380	7 041 109	34 161 427	27 983 839	17 119 634	1 353 924

Figure 1. Value of Construction Work by Type of Construction

(Percent)



1987
1982

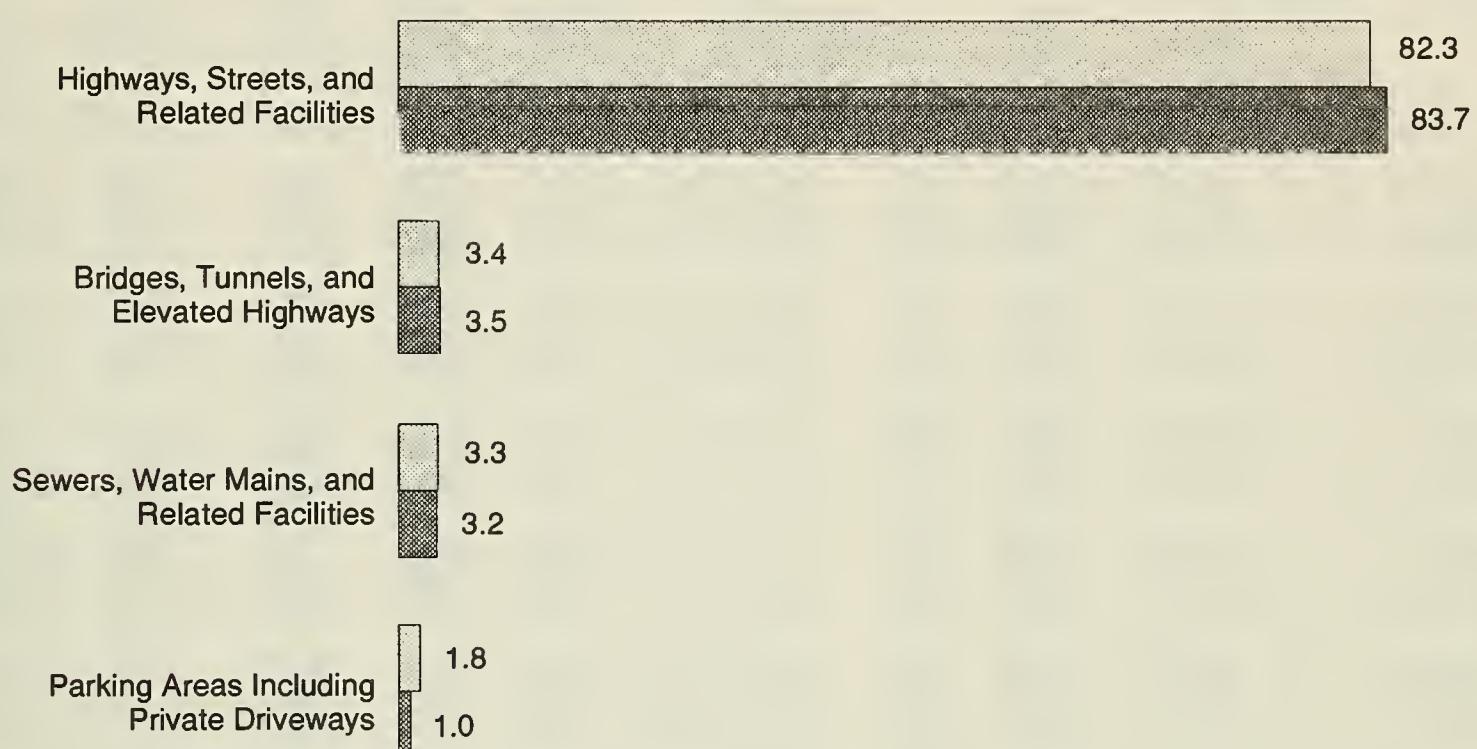


Figure 2. Selected Costs Per Dollar Value of Business Done

(Percent)



1987
1982

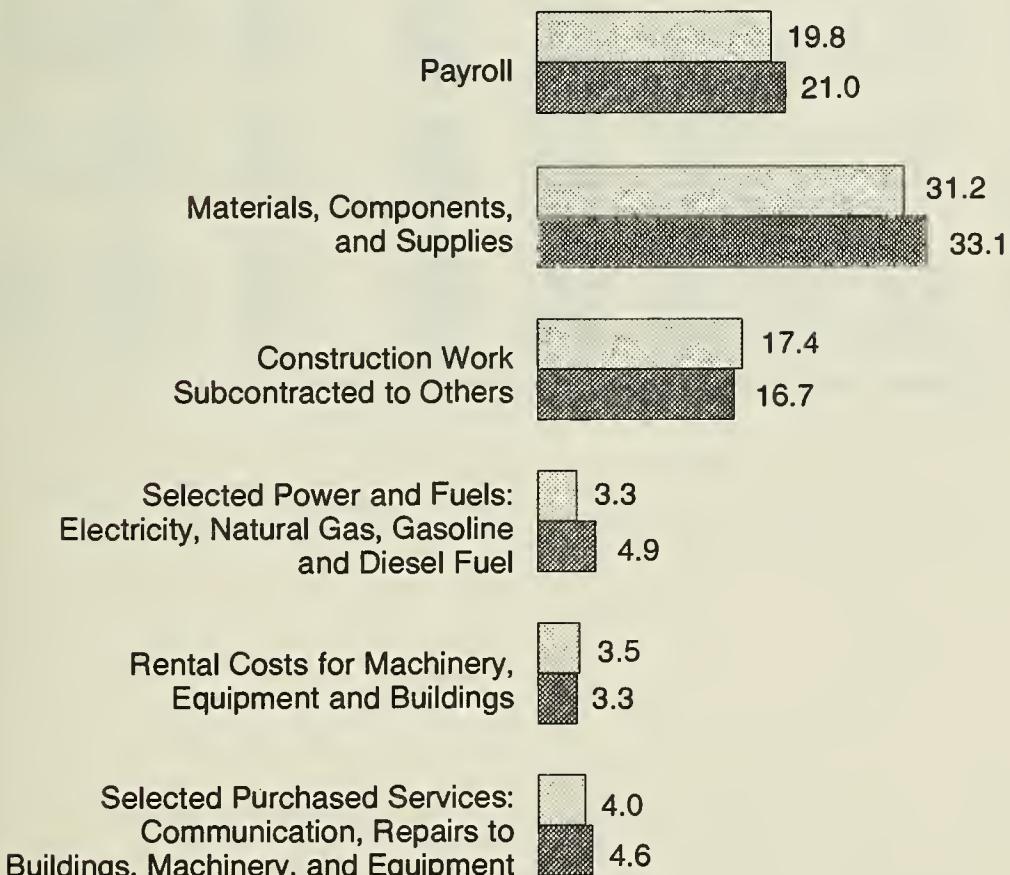


Table 1. General Statistics for Establishments With Payroll by State: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Location of establishment	1987								
	Number of establish- ments	Employees**		Payroll		Construction worker hours (thousands)	Value of construction work	Net value of construction work†	
		All	Construction workers	All employees	Construction workers				
	A	B	C	D	E	F	G	H	
United States	10 986	284 380	239 111	7 041 109	5 397 159	439 016	34 161 427	27 983 839	
Alabama	128	3 587	3 012	69 090	50 621	5 925	371 534	289 893	
Alaska	84	1 803	1 529	87 200	71 023	3 253	349 103	288 715	
Arizona	190	5 632	4 538	142 692	107 064	7 990	745 440	604 542	
Arkansas	100	2 235	1 890	43 027	32 742	3 631	224 796	189 374	
California	839	18 748	15 237	623 555	471 556	25 420	2 975 885	2 418 325	
Colorado	215	5 704	4 661	134 673	99 348	8 547	649 841	525 243	
Connecticut	215	4 047	3 435	121 973	91 635	6 285	528 259	452 612	
Delaware	40	1 666	1 401	36 234	27 111	2 479	178 818	131 766	
District of Columbia	16	917	789	21 206	15 177	1 113	81 401	65 571	
Florida	540	17 238	14 330	354 273	258 751	29 199	1 881 250	1 526 641	
Georgia	325	8 121	6 909	161 419	119 911	14 123	913 408	763 334	
Hawaii	39	1 110	876	39 250	24 214	1 540	166 074	128 456	
Idaho	64	1 060	879	25 226	19 682	1 527	107 029	83 957	
Illinois	422	11 351	9 403	344 965	262 137	16 426	1 543 635	1 216 720	
Indiana	234	4 973	4 156	126 333	100 585	8 046	569 333	502 575	
Iowa	196	3 798	3 151	87 871	68 296	6 438	475 127	387 957	
Kansas	110	4 497	3 746	114 801	88 311	7 431	603 805	470 731	
Kentucky	153	4 455	3 802	105 021	85 053	6 693	568 250	478 372	
Louisiana	164	7 051	5 973	152 156	111 654	10 506	737 252	616 146	
Maine	100	2 152	1 804	47 368	35 799	3 744	192 991	173 440	
Maryland	225	7 755	6 551	185 075	132 417	11 119	914 366	754 629	
Massachusetts	287	3 991	3 283	116 293	87 865	5 626	508 928	435 731	
Michigan	325	5 636	4 736	152 954	116 770	8 570	859 953	692 864	
Minnesota	269	7 869	6 668	225 626	179 798	12 588	1 224 946	972 315	
Mississippi	107	3 369	2 861	58 285	46 233	5 537	298 284	253 326	
Missouri	267	6 123	5 085	164 032	126 742	8 660	769 810	629 708	
Montana	87	1 616	1 361	37 069	27 843	2 214	199 781	172 713	
Nebraska	93	2 032	1 729	43 030	33 273	3 390	208 193	179 474	
Nevada	37	1 980	1 729	75 112	56 402	3 249	301 240	261 007	
New Hampshire	99	2 222	1 842	57 623	42 668	3 946	211 118	188 376	
New Jersey	353	7 016	5 893	198 199	155 373	10 472	838 067	724 836	
New Mexico	77	2 744	2 291	58 312	44 696	4 392	291 476	219 014	
New York	616	14 372	11 984	418 586	317 910	21 335	1 689 221	1 411 587	
North Carolina	293	8 567	7 399	154 320	124 463	13 797	837 893	662 348	
North Dakota	74	1 604	1 356	36 169	29 776	2 790	176 959	150 230	
Ohio	403	9 488	7 959	272 019	209 559	15 005	1 285 954	1 046 298	
Oklahoma	147	3 048	2 581	58 193	44 503	4 910	323 558	271 235	
Oregon	213	2 775	2 242	73 305	55 384	3 588	352 965	289 071	
Pennsylvania	493	12 701	10 766	331 783	257 432	18 894	1 654 971	1 363 150	
Rhode Island	47	764	624	20 338	16 815	1 198	102 715	82 155	
South Carolina	156	4 786	4 086	79 452	60 975	8 478	481 091	354 326	
South Dakota	104	1 160	979	25 123	20 304	1 760	117 959	101 579	
Tennessee	196	6 674	5 676	138 517	103 946	12 152	748 872	591 274	
Texas	757	31 776	27 741	617 490	505 520	46 456	3 069 721	2 542 047	
Utah	86	2 076	1 727	52 854	42 398	3 138	245 015	204 585	
Vermont	22	308	260	7 214	5 165	513	32 411	26 419	
Virginia	336	9 218	7 733	193 863	142 272	15 880	909 538	774 044	
Washington	226	4 599	3 705	138 944	100 638	6 457	603 218	484 293	
West Virginia	82	1 793	1 522	46 105	35 680	2 823	209 236	178 206	
Wisconsin	219	4 381	3 696	128 023	103 018	6 853	662 689	518 502	
Wyoming	94	1 768	1 502	38 843	30 631	2 882	168 028	134 103	

¹In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

1987—Con.

Value added††	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted to others	Rental cost for machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	1982			Relative standard error of estimate (percent) for column—			Location of establishment
						All employees**	Total construction receipts ¹	Value added††				
I	J	K	L	M	N	O	P	Q	B	H	M	
17 119 634	12 230 814	6 177 587	1 258 625	1 353 924	11 055 764	212 810	18 157 384	8 833 319	(W)	(W)	1	U.S.
143 253	157 630	81 640	9 730	19 852	153 974	2 907	227 213	108 194	4	2	6	AL
216 423	82 756	60 387	34 192	3 933	106 766	2 298	243 896	144 999	3	4	10	AK
356 455	273 569	140 897	29 223	25 423	212 473	3 966	393 847	101 789	2	2	3	AZ
99 780	97 527	35 421	6 167	9 449	93 899	1 719	103 097	51 726	5	4	10	AR
1 591 856	954 841	557 559	194 553	107 835	751 026	12 958	1 566 812	780 500	1	1	5	CA
334 029	214 427	124 597	21 025	24 350	261 437	4 742	402 578	207 518	3	2	2	CO
285 564	173 720	75 647	16 145	20 548	149 701	3 214	259 879	164 810	3	3	5	CT
70 430	69 169	47 052	5 842	6 427	56 272	1 078	92 006	61 327	4	3	10	DE
41 299	24 426	15 829	3 831	1 584	11 220	350	27 226	15 017	10	6	12	DC
923 701	708 098	354 608	65 441	82 287	572 554	11 806	874 425	407 518	1	1	3	FL
417 591	375 112	150 073	18 196	43 189	313 726	6 615	498 107	218 026	3	2	6	GA
83 007	(D)	37 618	7 489	11 002	49 474	983	107 855	51 037	2	1	1	HI
60 554	(D)	23 072	4 522	4 027	58 252	1 205	92 329	52 206	6	7	11	ID
798 258	480 179	326 915	63 830	53 103	511 025	9 710	891 452	388 370	1	1	3	IL
286 203	239 283	66 757	22 228	29 903	224 641	3 512	294 168	133 845	3	2	5	IN
215 036	185 191	87 170	10 224	19 342	187 701	4 022	315 242	153 326	4	3	5	IA
284 318	222 490	133 074	16 031	25 198	272 012	2 925	278 214	162 938	3	1	5	KS
270 106	242 580	89 878	13 135	37 198	241 297	4 266	325 360	152 935	2	2	4	KY
313 860	313 788	121 106	13 608	23 965	244 438	9 935	637 067	269 947	3	2	4	LA
106 208	87 310	19 551	8 816	8 443	90 986	990	57 041	30 886	13	8	6	ME
471 093	313 489	159 736	45 731	48 569	230 708	5 316	405 750	236 144	2	2	5	MD
262 652	186 661	73 197	19 708	16 912	112 253	3 024	254 941	134 716	4	3	9	MA
423 737	297 489	167 088	24 623	34 818	265 104	5 133	465 187	231 172	4	2	5	MI
631 481	378 200	252 630	51 172	34 497	428 885	5 628	559 131	221 231	2	1	5	MN
153 945	114 180	44 957	8 078	12 653	120 339	2 723	197 021	96 630	4	4	11	MS
396 673	248 544	140 102	18 316	23 934	260 818	3 583	326 707	144 531	3	2	7	MO
135 273	40 253	27 068	5 847	7 386	89 246	1 523	140 773	86 011	5	4	10	MT
86 932	96 615	28 718	4 540	11 614	100 381	1 580	108 698	51 265	5	6	8	NE
171 391	103 991	40 233	20 878	13 319	86 666	1 535	175 061	76 472	1	1	3	NV
115 444	107 784	22 741	13 204	14 352	108 002	1 386	118 587	68 279	4	4	6	NH
469 724	280 013	113 230	28 741	37 412	231 972	4 575	381 346	157 508	2	2	7	NJ
137 171	87 646	72 462	8 112	9 119	106 808	2 277	177 444	93 515	2	2	3	NM
907 846	602 371	277 633	70 298	51 465	397 074	8 717	865 464	412 656	3	2	5	NY
375 077	346 370	175 545	26 599	47 805	315 596	6 882	437 300	161 671	2	2	7	NC
92 859	63 883	26 729	8 035	9 233	83 308	1 351	134 871	73 610	4	3	6	ND
601 745	484 098	239 656	28 147	45 249	314 151	6 786	683 065	295 860	3	2	7	OH
164 600	121 817	52 322	13 041	10 362	104 604	3 142	258 753	125 878	4	4	8	OK
199 976	110 749	63 893	19 756	13 619	93 981	2 386	226 090	120 155	5	4	11	OR
882 588	562 747	291 820	56 380	63 398	434 453	9 251	835 064	450 754	3	2	6	PA
66 265	17 418	20 559	2 733	6 158	32 929	582	49 470	24 359	8	7	24	RI
195 099	169 432	126 764	9 920	25 079	168 391	2 617	194 549	99 288	3	4	9	SC
79 109	(D)	16 379	2 397	4 085	78 018	866	62 718	35 700	7	7	10	SD
316 690	305 591	157 597	16 982	39 638	295 660	4 465	344 259	133 763	3	2	5	TN
1 404 933	1 201 547	527 674	94 566	75 436	832 885	20 287	1 589 203	691 705	1	1	3	TX
140 650	71 543	40 430	12 087	11 464	175 187	2 070	169 743	94 976	3	3	1	UT
17 772	9 519	5 992	2 001	827	9 168	191	12 494	6 467	11	7	(W)	VT
459 291	346 368	135 493	22 879	64 022	408 965	5 066	355 852	174 429	2	2	7	VA
339 452	173 775	118 925	26 155	17 588	187 095	4 212	389 952	205 781	3	2	7	WA
121 143	72 469	31 029	5 722	14 594	101 059	1 649	133 548	74 108	3	3	2	WV
314 077	223 490	144 187	17 817	25 215	229 372	2 821	297 066	131 692	3	4	6	WI
86 992	52 420	33 924	9 909	7 022	89 792	1 775	119 433	66 086	4	3	9	WY

Table 2. Detailed Statistics for Establishments With Payroll: 1987 and Earlier Census Years

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	1987	1982	1977	1972	Relative standard error of estimate (percent)			
					1987	1982	1977	1972
Number of establishments in business during year	10 986	10 111	11 748	9 232	1	1	2	2
Proprietors and working partners	1 637	2 077	4 341	3 839	6	4	4	5
All employees**	284 380	212 610	267 917	278 107	(W)	(W)	(W)	1
Construction workers:								
March	173 163	123 961	158 199	170 179	(W)	(W)	(W)	1
May	254 289	189 782	250 034	249 922	(W)	(W)	(W)	1
August	282 993	219 168	280 744	304 361	(W)	(W)	(W)	1
November	246 032	184 490	241 713	247 758	1	(W)	(W)	1
Average	239 111	180 303	232 810	244 292	(W)	(W)	(W)	1
Other employees:								
March	43 982	32 162	32 875	32 258	1	1	1	1
May	44 909	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
August	46 761	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
November	45 410	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Average	45 268	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Construction worker hours (thousands):								
January to March	71 791	51 364	(NA)	(NA)	1	(W)	(NA)	(NA)
April to June	117 066	83 586	(NA)	(NA)	1	(W)	(NA)	(NA)
July to September	138 046	103 045	(NA)	(NA)	1	(W)	(NA)	(NA)
October to December	112 112	80 636	(NA)	(NA)	1	(W)	(NA)	(NA)
Total hours worked	439 016	318 633	(NA)	(NA)	1	(W)	(NA)	(NA)
Payroll, all employees	7 041 109	3 989 211	3 595 809	2 846 063	(W)	(W)	(W)	1
Payroll, construction workers	5 397 159	3 138 381	2 927 185	2 364 818	(W)	(W)	(W)	1
Payroll, other employees	1 643 949	850 829	668 624	481 245	(W)	(W)	(W)	1
First quarter payroll, all employees	1 216 316	664 357	546 790	(NA)	(W)	(W)	(W)	(NA)
Employer costs for fringe benefits, all employees	1 708 196	770 436	722 131	(NA)	(W)	(W)	(W)	(NA)
Legally required expenditures	1 083 019	567 356	411 917	(NA)	(W)	(W)	(W)	(NA)
Voluntary expenditures	625 177	203 079	310 214	(NA)	(W)	(W)	(W)	(NA)
Dollar value of business done	35 528 035	19 035 172	15 620 916	11 325 982	(W)	(W)	(W)	1
Value of construction work ¹	34 161 427	18 157 364	15 021 207	11 005 402	(W)	(W)	(W)	1
Value of construction work subcontracted in from others	7 065 089	2 950 376	2 935 619	1 655 752	1	1	2	
Land receipts ²	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other business receipts	1 366 608	877 808	599 709	320 580	1	(W)	(W)	6
Net value of construction work ¹	27 983 839	14 987 471	12 546 357	8 986 451	(W)	(W)	(W)	1
Value added††	17 119 634	8 633 319	7 641 218	5 838 317	(W)	(W)	(W)	1
Selected costs	18 408 401	10 401 853	7 979 699	5 487 665	(W)	(W)	(W)	1
Materials, components, and supplies ³	11 067 102	6 304 529	4 917 779	3 468 714	(W)	(W)	(W)	1
Construction work subcontracted to others	6 177 587	3 169 893	2 474 851	2 018 951	1	(W)	(W)	1
Selected power, fuels, and lubricants	1 163 712	927 431	587 069	(NA)	(W)	(W)	(W)	(NA)
Electricity	103 582	82 831	46 713	(NA)	1	1	1	(NA)
Natural gas	76 196	69 168	35 036	(NA)	1	1	1	(NA)
Gasoline and diesel fuel	886 197	709 441	438 500	(NA)	(W)	(W)	(W)	(NA)
On highway use	397 964	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Off highway use	488 233	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Other, including lubricating oils and greases	97 736	65 990	66 867	(NA)	1	1	(NA)	(NA)
Rental cost for machinery, equipment, and buildings	1 258 625	621 502	543 662	(NA)	1	1	(W)	(NA)
For machinery and equipment	1 178 028	582 027	519 027	523 288	1	1	(W)	1
For buildings	80 597	39 475	24 635	(NA)	2	2	1	(NA)
Selected purchased services	1 432 867	873 430	764 247	(NA)	1	(W)	(W)	(NA)
Communication services	88 693	56 235	39 975	(NA)	1	1	1	(NA)
Repairs to buildings and other structures	34 023	23 825	14 918	(NA)	5	2	1	(NA)
Repairs to machinery and equipment	1 310 151	793 369	709 354	(NA)	1	(W)	(W)	(NA)
Ownership of construction projects:								
Value of construction work ¹	34 161 427	18 157 364	15 021 207	11 005 402	(W)	(W)	(W)	1
Government owned	24 112 623	12 897 206	10 326 924	8 530 428	1	(W)	(W)	1
Federal	4 688 600	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
State and local	19 424 023	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Privately owned	10 048 803	5 260 158	4 694 283	2 474 974	1	1	(W)	1

¹In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

²Data were collected separately for establishments classified in SIC 1531, Operative Builders, and SIC 6552, Subdividers and Developers, Except Cemeteries. For all other industries, data are included in other business receipts.

³For 1972, includes data for power, fuels, and lubricants.

**Table 3. Assets, Capital Expenditures, and Depreciation for Establishments With Payroll:
1987 and 1982**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	1987	1982	Relative standard error of estimate (percent)	
			1987	1982
BUILDINGS AND OTHER STRUCTURES, MACHINERY, AND EQUIPMENT				
Beginning-of-year gross book value of depreciable assets	10 241 436	8 646 400	1	1
Capital expenditures, other than land	1 353 924	645 538	1	1
New	1 070 253	439 268	1	1
Used	283 670	206 270	2	1
Retirements and disposition of depreciable assets	539 596	399 119	6	1
End-of-year gross book value of depreciable assets	11 055 764	8 892 819	1	1
Depreciation charges during year	1 166 397	907 659	1	1
Buildings and other Structures, Additions, and Related Facilities				
Beginning-of-year gross book value of depreciable assets	833 503	688 635	2	1
Capital expenditures, other than land	115 374	52 535	2	3
New buildings and other structures	100 775	34 248	2	3
Used buildings and other structures	14 598	18 286	10	2
Retirements and disposition of depreciable assets	15 201	25 251	8	1
End-of-year gross book value of depreciable assets	933 676	715 919	2	1
Depreciation charges during year	69 506	45 843	2	2
Machinery and Equipment				
Beginning-of-year gross book value of depreciable assets	9 407 933	7 957 764	1	1
Capital expenditures, other than land	1 238 550	593 003	1	1
New machinery and equipment, including automobiles and trucks	969 478	405 019	1	1
New automobiles and trucks, intended primarily for highway use	261 602	93 122	2	2
Used machinery and equipment, including automobiles and trucks	269 072	187 983	2	1
Retirements and disposition of depreciable assets	524 395	373 868	6	1
End-of-year gross book value of depreciable assets	10 122 087	8 176 899	1	1
Depreciation charges during year	1 096 890	861 815	1	1

Table 4. Value of Inventories for Establishments With Payroll: 1987 and 1986

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	Establishments with payroll	Relative standard error of estimate (percent)
All establishments:		
Number -----	10 986	1
Value of construction work -----	34 161 427	(W)
Establishments with inventories:		
Number -----	3 664	2
Value of construction work -----	16 844 983	1
Inventories:		
End of 1987, materials and supplies -----	365 353	1
End of 1986, materials and supplies -----	360 959	1
Establishments with no inventories:		
Number -----	5 790	2
Value of construction work -----	12 777 713	1
Establishments not reporting:		
Number -----	1 532	4
Value of construction work -----	4 538 731	1

¹Inventories at cost or market prior to any adjustment to correct to LIFO values.

Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Selected statistics	Total	Establishments with an average of--								
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees	1,000 employees or more
1987										
Number of establishments -----	10 986	3 466	2 181	2 086	1 948	745	435	98	23	3
All employees** -----	284 380	7 350	14 478	28 050	59 272	52 371	65 494	32 984	15 278	9 101
Payroll, all employees -----	7 041 109	124 934	290 087	611 004	1 418 880	1 379 904	1 753 018	872 666	382 769	207 844
Construction worker hours (thousands) -----	439 016	9 689	19 064	38 263	88 781	85 686	109 988	54 775	23 541	9 226
Dollar value of business done -----	35 528 035	774 849	1 446 605	2 996 759	6 951 345	6 945 956	9 198 660	4 491 275	2 722 584	(D)
Value of construction work ¹ -----	34 161 427	750 092	1 417 247	2 920 330	6 679 445	6 687 998	8 793 694	4 264 594	2 648 025	(D)
Net value of construction work ¹ -----	27 983 839	660 929	1 219 084	2 513 891	5 610 772	5 453 926	6 974 587	3 415 080	2 135 570	(D)
Value added†† -----	17 119 634	405 181	760 254	1 547 169	3 513 617	3 337 470	4 197 614	2 105 676	780 760	471 892
Cost of materials, components, supplies, and fuels -----	12 230 814	280 504	488 188	1 043 151	2 369 055	2 374 413	3 181 938	1 536 085	957 477	(D)
Cost of construction work subcontracted to others-----	6 177 587	89 163	198 163	406 438	1 068 673	1 234 071	1 819 107	849 514	512 455	(D)
Rental cost for machinery, equipment, and buildings -----	1 258 625	24 197	50 595	108 270	253 296	251 072	311 511	158 121	82 703	18 858
Capital expenditures, other than land -----	1 353 924	28 088	68 209	122 046	279 005	272 981	336 861	161 875	84 856	(D)
End-of-year gross book value of depreciable assets -----	11 055 764	263 359	528 540	983 575	2 237 953	2 329 538	2 716 981	1 395 216	600 600	(D)
1982										
All employees** -----	212 610	8 779	13 425	21 800	42 113	36 904	51 241	24 195	7 790	6 362
Total construction receipts ¹ -----	18 157 364	559 562	835 891	1 640 683	3 638 953	3 456 791	4 882 513	2 102 055	712 993	327 922
Value added†† -----	8 633 319	283 915	445 900	839 301	1 754 120	1 653 625	2 278 929	975 652	228 302	173 574
1987 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)										
All employees** -----	(W)	4	4	3	1	(W)	(W)	(W)	(W)	(W)
Net value of construction work ¹ -----	(W)	5	4	2	1	(W)	(W)	(W)	(W)	(W)
Capital expenditures, other than land -----	1	10	11	6	3	1	1	1	(W)	(D)

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

¹In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

Table 6. Selected Statistics by Size Class of the Dollar Value of Business Done for Establishments With Payroll: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Selected statistics	Total	Establishments with dollar value of business done									
		Less than \$25,000	\$25,000 to \$49,999	\$50,000 to \$99,999	\$100,000 to \$249,999	\$250,000 to \$499,999	\$500,000 to \$999,999	\$1,000,000 to \$2,499,999	\$2,500,000 to \$4,999,999	\$5,000,000 to \$9,999,999	\$10,000,000 or more
1987											
Number of establishments -----	10 986	(S)	(S)	(S)	1 397	1 806	1 657	2 020	1 166	790	827
All employees** -----	284 380	(S)	(S)	(S)	4 430	10 235	16 110	34 213	35 192	43 497	138 794
Payroll, all employees -----	7 041 109	(S)	(S)	(S)	56 469	158 339	295 621	727 877	849 019	1 112 148	3 825 463
Construction worker hours (thousands) -----	439 016	(S)	(S)	(S)	5 512	13 495	21 092	49 210	52 117	70 316	225 154
Dollar value of business done -----	35 528 035	(S)	(S)	(S)	227 479	651 852	1 193 332	3 249 133	4 017 882	5 531 322	20 593 575
Value of construction work ¹ -----	34 161 427	(S)	(S)	(S)	219 929	637 475	1 170 900	3 154 534	3 885 084	5 312 512	19 718 930
Net value of construction work ¹ -----	27 983 839	(S)	(S)	(S)	208 599	582 007	1 073 669	2 758 378	3 326 181	4 345 504	15 630 430
Value added†† -----	17 119 634	(S)	(S)	(S)	139 383	361 446	658 332	1 746 012	2 094 871	2 712 861	9 368 124
Cost of materials, components, supplies, and fuels -----	12 230 814	(S)	(S)	(S)	76 766	234 938	437 769	1 106 964	1 364 107	1 851 453	7 136 951
Cost of construction work subcontracted to others -----	6 177 587	(S)	(S)	(S)	11 330	55 468	97 230	396 156	558 903	967 007	4 088 500
Rental cost for machinery, equipment, and buildings -----	1 258 625	(S)	(S)	(S)	8 144	22 852	41 504	111 243	147 884	208 299	717 486
Capital expenditures, other than land -----	1 353 924	(S)	(S)	(S)	12 365	38 104	44 394	139 055	169 754	234 581	713 926
End-of-year gross book value of depreciable assets -----	11 055 764	(S)	(S)	(S)	99 175	278 440	428 594	1 234 953	1 363 492	1 875 035	5 732 198
1982											
All employees** -----	212 610	696	1 029	2 200	8 239	10 504	15 073	29 120	29 164	32 398	84 185
Total construction receipts ¹ -----	18 157 364	7 522	22 329	68 611	340 682	535 342	894 678	2 128 817	2 462 626	3 002 853	8 693 902
Value added†† -----	8 633 319	3 711	11 950	38 168	185 304	291 583	477 338	1 075 323	1 199 005	1 436 391	3 914 543
1987 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)											
All employees** -----	(W)	(S)	(S)	(S)	6	5	4	2	1	(W)	(W)
Net value of construction work ¹ -----	(W)	(S)	(S)	(S)	5	5	4	2	2	1	(W)
Capital expenditures, other than land -----	1	(S)	(S)	(S)	14	11	9	6	4	2	(W)

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

¹In earlier censuses construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Type of construction	Value of construction work ¹				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction ²	Maintenance and repair	A	B	C	D
	A	B	C	D	A	B	C	D
1987								
Value of construction work ¹	34 161 427	19 135 235	9 176 728	5 315 634	(W)	(W)	1	1
Building construction	671 861	512 128	132 407	27 326	2	2	3	7
Nonbuilding construction	32 955 736	18 623 107	9 044 321	5 288 308	(W)	(W)	1	1
Highways, streets, and related facilities	28 123 431	15 133 932	8 206 617	4 782 881	(W)	(W)	1	1
Airport runways	123 809	43 347	55 522	24 940	4	11	(W)	3
Parking areas including private driveways	607 665	383 184	121 837	102 643	2	3	3	2
Recreational facilities such as athletic fields, golf courses, and outdoor tennis courts	183 363	133 287	25 719	24 356	4	4	5	18
Bridges, tunnels, and elevated highways	1 152 276	816 236	241 201	94 838	1	1	1	2
Tunnels	32 856	29 831	1 072	1 952	4	4	2	25
Bridges and elevated highways	1 119 420	786 405	240 129	92 885	1	1	1	2
Dam and reservoir construction	185 273	168 308	13 774	3 190	1	1	7	(W)
Marine construction	88 785	(D)	(D)	8 546	(W)	(D)	(D)	(W)
Conservation and development construction	177 865	145 849	21 111	10 904	4	4	4	16
Sewers, water mains, and related facilities	1 112 314	863 037	176 283	72 992	1	1	1	2
Sewers, sewer lines, and related facilities	745 049	581 465	111 974	51 609	1	1	1	2
Water mains and related facilities	367 265	281 572	64 309	21 383	2	2	1	3
Mass transit construction	54 092	27 775	3 887	22 429	1	(W)	5	3
Power plants	177 092	117 342	33 614	26 135	1	1	2	3
Sewage treatment and water treatment plants	110 885	92 276	14 827	3 781	2	2	6	6
Sewage treatment plants	80 871	65 640	12 146	3 084	3	2	7	7
Water treatment plants	30 013	26 635	2 681	696	3	4	(W)	(W)
Earthmoving, nonbuilding	272 575	248 768	12 434	11 372	2	2	8	8
Other nonbuilding construction	586 311	(D)	(D)	99 301	5	(D)	(D)	12
Construction work, n.s.k.	533 828	(NA)	(NA)	(NA)	3	(NA)	(NA)	(NA)
1982								
Value of construction work ¹	18 157 364	12 322 560	(NA)	5 834 803	(W)	(W)	(NA)	1
Building construction	305 398	254 737	(NA)	50 661	1	1	(NA)	3
Nonbuilding construction	17 520 916	11 797 897	(NA)	5 723 018	(W)	(W)	(NA)	1
Highways, streets, and related facilities	15 200 957	9 899 049	(NA)	5 301 907	(W)	(W)	(NA)	1
Parking areas including private driveways	152 103	109 062	(NA)	43 041	4	5	(NA)	3
Recreational facilities such as athletic fields, golf courses, and outdoor tennis courts	70 319	54 968	(NA)	15 350	11	13	(NA)	11
Bridges, tunnels, and elevated highways	632 505	480 447	(NA)	152 057	(W)	(W)	(NA)	(W)
Tunnels	15 826	7 924	(NA)	7 901	3	4	(NA)	6
Bridges and elevated highways	616 679	472 523	(NA)	144 156	(W)	(W)	(NA)	(W)
Dam and reservoir construction	69 685	59 519	(NA)	10 166	1	1	(NA)	1
Marine construction	75 803	63 936	(NA)	11 867	(W)	(W)	(NA)	1
Conservation and development construction	134 975	127 057	(NA)	7 917	1	1	(NA)	6
Sewers, water mains, and related facilities	573 904	502 343	(NA)	71 560	(W)	(W)	(NA)	1
Sewers, sewer lines, and related facilities	437 910	385 272	(NA)	52 638	1	1	(NA)	1
Water mains and related facilities	135 993	117 071	(NA)	18 921	1	1	(NA)	1
Mass transit construction	62 899	60 404	(NA)	2 494	(W)	(W)	(NA)	(W)
Power plants	92 886	68 925	(NA)	23 961	1	1	(NA)	(W)
Power plants, nuclear	36 948	18 447	(NA)	18 501	2	5	(NA)	(W)
Power plants, except nuclear	55 938	50 477	(NA)	5 460	(W)	(W)	(NA)	(W)
Sewage treatment and water treatment plants	107 338	99 949	(NA)	7 389	1	1	(NA)	4
Sewage treatment plants	85 657	80 261	(NA)	5 395	1	1	(NA)	5
Water treatment plants	21 681	19 687	(NA)	1 993	4	4	(NA)	10
Other nonbuilding construction	347 542	272 233	(NA)	75 309	2	1	(NA)	10
Construction work, n.s.k.	331 049	269 925	(NA)	61 124	2	2	(NA)	4

¹In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

²In 1982, data for additions, alterations, or reconstruction were collected separately for SIC 1521, 1522, 1531, 1541, and 1542. For all other industries, data are included with "New construction."

Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1987

[Thousand dollars. Detail may not add to total due to rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	Number of establishments	All employees**	Payroll, all employees	Value of construction work		Nat value of construction work†	Value added††	Relative standard error of estimate (percent) for column—			
				For all types	For specialized type			B	D	H	
	A	C	E	F	G	I	J	K			
All establishments -----	10 986	284 380	7 041 109	34 181 427	27 347 220	27 983 839	17 119 634	6 177 587	(W)	(W)	1
Establishments not specializing by type -----	754	30 988	782 151	3 545 894	(NA)	2 859 616	1 851 447	686 278	(W)	(W)	1
Establishments specializing 51 percent or more -----	10 232	253 391	6 258 957	30 615 532	27 347 220	25 124 223	15 268 186	5 491 308	1	1	1
HIGHWAYS, STREETS, AND RELATED FACILITIES											
All establishments specializing in type -----	8 296	243 009	6 072 770	29 754 216	26 537 179	24 382 244	14 790 908	5 391 974	1	(W)	1
Establishments with —											
100 percent specialization -----	5 694	131 245	3 148 350	16 060 028	16 060 028	13 231 866	7 912 963	2 828 161	1	1	1
90 to 99 percent specialization -----	672	28 104	694 272	3 478 665	3 269 973	2 824 388	1 689 197	654 276	1	1	1
80 to 89 percent specialization -----	523	27 243	719 799	3 220 080	2 657 065	2 598 618	1 642 740	621 462	1	1	2
70 to 79 percent specialization -----	604	23 443	632 514	2 828 374	2 074 202	2 291 761	1 392 143	536 613	1	1	1
60 to 69 percent specialization -----	528	20 144	547 108	2 514 494	1 570 171	2 039 646	1 277 792	474 847	1	1	1
51 to 59 percent specialization -----	272	12 827	330 725	1 652 576	905 737	1 375 962	876 072	276 613	3	1	1

Table 9. Quarterly Construction Worker Hours and Employment for Establishments With

[Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Location of establishment	Number of establishments	Average number of construction workers	Construction worker hours (thousands)	January to March		April to June	
				Construction workers ¹	Hours worked (thousands)	Construction workers ¹	Hours worked (thousands)
	A	B	C	D	E	F	G
United States -----	10 986	239 111	439 016	173 163	71 791	254 289	117 066
Alabama -----	128	3 012	5 925	2 498	1 086	3 093	1 541
Alaska -----	84	1 529	3 253	1 185	531	1 620	928
Arizona -----	190	4 538	7 990	4 195	1 706	4 662	2 031
Arkansas -----	100	1 890	3 631	1 525	625	1 989	971
California -----	839	15 237	25 420	12 246	4 684	15 232	6 538
Colorado -----	215	4 661	8 547	3 093	1 327	5 203	2 458
Connecticut -----	215	3 435	6 285	2 144	873	3 585	1 615
Delaware -----	40	1 401	2 479	997	347	1 452	620
District of Columbia -----	16	789	1 113	599	187	855	310
Florida -----	540	14 330	29 199	13 577	6 720	14 586	7 389
Georgia -----	325	6 909	14 123	5 916	2 616	6 943	3 668
Hawaii -----	39	876	1 540	789	340	879	393
Idaho -----	64	879	1 527	570	204	956	439
Illinois -----	422	9 403	16 426	4 560	1 769	10 540	4 564
Indiana -----	234	4 156	8 046	2 297	985	4 584	2 266
Iowa -----	196	3 151	6 438	1 547	629	3 687	1 800
Kansas -----	110	3 746	7 431	2 717	1 082	3 990	2 018
Kentucky -----	153	3 802	6 693	2 595	983	4 198	1 888
Louisiana -----	164	5 973	10 506	5 019	1 977	6 153	2 746
Maine -----	100	1 804	3 744	898	464	2 173	1 053
Maryland -----	225	6 551	11 119	4 681	1 770	7 022	2 961
Massachusetts -----	287	3 283	5 626	1 840	710	3 702	1 534
Michigan -----	325	4 736	8 570	1 793	715	5 308	2 318
Minnesota -----	269	6 668	12 588	3 355	1 458	7 752	3 539
Mississippi -----	107	2 861	5 537	2 342	974	2 981	1 452
Missouri -----	267	5 085	8 660	3 649	1 326	5 711	2 486
Montana -----	87	1 361	2 214	831	282	1 507	630
Nebraska -----	93	1 729	3 390	1 032	377	1 932	917
Nevada -----	37	1 729	3 249	1 444	628	1 757	846
New Hampshire -----	99	1 842	3 946	1 036	466	2 177	1 102
New Jersey -----	353	5 893	10 472	4 006	1 655	6 353	2 815
New Mexico -----	77	2 291	4 392	1 959	840	2 331	1 179
New York -----	616	11 984	21 335	6 976	2 829	12 953	5 645
North Carolina -----	293	7 399	13 797	6 116	2 394	7 675	3 738
North Dakota -----	74	1 356	2 790	469	197	1 541	773
Ohio -----	403	7 959	15 005	4 168	1 803	8 720	3 957
Oklahoma -----	147	2 581	4 910	2 102	918	2 624	1 311
Oregon -----	213	2 242	3 588	1 423	512	2 279	890
Pennsylvania -----	493	10 766	18 894	6 709	2 584	11 521	4 988
Rhode Island -----	47	624	1 198	329	130	718	359
South Carolina -----	156	4 086	8 478	3 582	1 658	4 315	2 247
South Dakota -----	104	979	1 760	471	168	1 153	529
Tennessee -----	196	5 676	12 152	4 300	1 910	5 887	3 215
Texas -----	757	27 741	46 456	26 523	10 800	27 778	11 809
Utah -----	86	1 727	3 138	1 167	448	1 965	872
Vermont -----	22	260	513	128	57	337	154
Virginia -----	336	7 733	15 880	5 878	2 639	8 228	4 253
Washington -----	226	3 705	6 457	2 793	1 100	3 836	1 731
West Virginia -----	82	1 522	2 823	978	418	1 738	746
Wisconsin -----	219	3 696	6 853	1 333	552	4 364	2 003
Wyoming -----	94	1 502	2 882	763	314	1 722	804

¹Construction workers during pay periods including 12th of March, May, August, and November.

Payroll by State: 1987

July to September		October to December		Relative standard error of estimate (percent) for column—												Location of establish- ment
Construction workers ¹	Hours worked (thousands)	Construction workers ¹	Hours worked (thousands)	B	C	D	E	F	G	H	I	J	K			
H	I	J	K													
282 993	138 046	246 032	112 112	(W)	1	(W)	1	(W)	1	(W)	1	1	1	1	1	U.S.
3 352	1 720	3 106	1 577	4	5	4	5	4	5	4	5	4	5	4	5	AL
1 924	1 078	1 387	715	3	3	1	2	3	5	5	5	4	6	2	2	AK
4 937	2 290	4 359	1 961	2	3	2	2	3	3	3	3	3	3	3	3	AZ
2 239	1 156	1 808	877	5	5	4	6	4	8	6	6	4	5	4	5	AR
17 063	7 503	16 408	6 694	1	2	1	2	1	2	1	2	1	2	1	2	CA
5 835	2 776	4 513	1 984	3	3	3	5	3	4	3	3	3	3	3	3	CO
4 226	2 024	3 788	1 771	3	4	4	5	3	4	3	3	4	3	3	3	CT
1 594	771	1 561	739	4	3	4	3	4	3	3	4	4	3	3	3	DE
949	330	754	284	10	8	13	11	11	8	10	7	8	7	8	6	DC
14 809	7 683	14 349	7 406	1	2	1	2	1	2	2	2	2	2	2	2	FL
7 534	4 067	7 244	3 770	3	3	2	3	2	3	3	3	3	3	3	3	GA
941	425	898	382	2	3	1	2	2	3	3	3	3	3	3	3	HI
1 158	523	834	360	7	6	6	7	6	7	7	7	8	9	9	6	ID
12 250	5 736	10 263	4 355	1	2	2	3	1	2	2	2	2	2	2	2	IL
5 370	2 774	4 375	2 020	3	5	9	13	3	5	3	3	5	3	3	5	IN
4 477	2 565	2 894	1 442	4	5	9	13	4	5	4	5	4	5	5	6	IA
4 498	2 433	3 777	1 898	2	4	2	3	4	4	4	4	3	4	4	4	KS
4 511	2 112	3 907	1 708	2	2	2	3	2	3	3	3	2	3	3	3	KY
6 409	2 998	6 310	2 784	3	4	3	4	3	4	3	4	3	3	3	4	LA
2 300	1 269	1 846	956	12	11	15	12	14	12	11	11	11	9	9	10	ME
7 612	3 392	6 890	2 994	2	2	1	2	2	2	2	2	2	2	1	2	MD
3 985	1 814	3 606	1 566	4	4	4	4	4	4	4	4	4	4	4	4	MA
6 538	3 262	5 308	2 274	5	6	5	7	4	6	5	6	5	6	6	8	MI
9 057	4 750	6 508	2 840	2	3	2	3	2	3	2	3	2	3	3	3	MN
3 199	1 647	2 923	1 462	4	6	4	4	4	6	4	6	5	7	6	9	MS
5 993	2 865	4 987	1 981	3	3	4	4	3	4	3	4	3	3	3	3	MO
1 846	809	1 259	492	5	6	6	9	5	6	5	6	5	7	6	8	MT
2 217	1 230	1 733	864	5	8	4	8	5	7	5	7	6	8	6	10	NE
1 935	957	1 778	816	1	2	1	2	1	2	1	2	1	2	1	1	NV
2 279	1 368	1 877	1 009	4	4	4	5	9	9	9	9	3	3	3	3	NH
6 939	3 224	6 276	2 777	2	3	2	3	2	3	2	3	3	3	3	3	NJ
2 713	1 335	2 159	1 036	2	4	2	4	2	4	2	4	3	3	4	2	NM
15 295	7 181	12 710	5 677	3	3	3	4	3	3	3	3	3	3	3	2	NY
8 149	4 057	7 660	3 607	2	3	2	3	2	3	2	3	2	3	2	3	NC
2 136	1 169	1 276	649	4	5	9	16	4	5	4	5	4	6	4	5	ND
10 339	5 216	8 613	4 027	3	3	3	3	3	3	3	3	3	3	3	3	OH
2 870	1 418	2 726	1 261	5	5	5	5	5	5	5	5	5	5	5	6	OK
3 000	1 303	2 265	881	5	6	5	6	5	6	5	7	5	7	5	6	OR
13 221	6 128	11 616	5 193	3	3	2	2	2	2	2	3	3	3	3	4	PA
757	361	691	347	6	8	9	13	7	9	9	6	6	9	6	9	RI
4 331	2 520	4 115	2 051	3	4	3	4	3	4	3	4	3	4	3	4	SC
1 383	691	911	370	7	5	11	9	7	6	7	5	8	7	8	8	SD
6 603	3 831	5 912	3 195	3	4	3	4	3	4	3	3	3	4	3	3	TN
28 866	12 413	27 801	11 433	1	1	1	1	1	1	1	1	1	2	1	2	TX
2 214	1 116	1 561	702	3	3	3	3	3	4	3	4	3	4	3	3	UT
367	182	215	118	10	12	9	11	10	13	9	10	15	15	15	15	VT
8 740	4 836	8 085	4 150	2	3	2	3	2	3	2	3	2	3	2	3	VA
4 481	2 038	3 710	1 587	3	4	3	4	3	4	3	4	3	4	3	5	WA
1 906	975	1 468	683	3	4	2	5	5	4	4	3	3	4	4	5	WV
5 332	2 571	3 756	1 726	3	3	4	4	4	4	3	4	3	4	4	3	WI
2 289	1 128	1 234	636	3	4	4	4	4	4	3	3	3	4	4	5	WY

Table 10. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Location of construction work	1987					1982 construction receipts for work done in this State ¹	Percent change 1987 (col A) to 1982 (col F)	Relative standard error of estimate (percent) for column—									
	Value of construction work done in this State ¹	Construction work done by establishments located in this State		Construction work done by establishments not located in this State													
		Number	Value of construction work	Number	Value of construction work			A	B	C	D	E	F	G	A	C	E
United States -----	34 161 427	10 864	30 487 302	2 325	3 674 124	18 157 364	88.1	(W)	(W)	(W)	1						
Alabama -----	433 635	128	345 865	46	87 769	251 984	72.1	2	2	(W)							
Alaska -----	320 912	83	(D)	4	(D)	298 744	7.4	4	4	(D)	(D)						
Arizona -----	782 223	179	698 901	66	83 321	380 891	105.4	2	2	2	1						
Arkansas -----	313 442	99	221 325	64	92 117	130 677	139.9	3	4	4	3						
California -----	3 058 330	839	2 923 147	32	135 182	1 489 829	105.3	1	1	(W)							
Colorado -----	525 537	210	478 776	30	46 761	350 606	49.9	2	3	2	2						
Connecticut -----	536 143	215	515 077	15	21 065	177 587	201.9	3	3	3	(W)						
Delaware -----	155 907	39	127 858	30	28 049	86 344	80.6	5	3	3	21						
District of Columbia -----	117 988	13	66 252	40	51 736	(D)	(D)	(W)	(W)	(W)	(W)						
Florida -----	1 913 657	539	1 841 197	36	72 459	960 166	99.3	1	1	1	4						
Georgia -----	1 018 646	325	879 879	86	138 767	497 541	104.7	2	2	2	3						
Hawaii -----	183 157	39	165 914	5	17 242	119 393	53.4	1	1	(W)							
Idaho -----	107 123	56	87 021	35	20 101	110 956	-3.5	7	8	15							
Illinois -----	1 569 568	418	1 471 377	47	98 191	857 583	83.0	1	1	1	3						
Indiana -----	559 660	232	513 836	25	45 824	292 916	91.1	2	2	1	1						
Iowa -----	390 521	187	348 204	54	42 316	277 536	40.7	3	3	3	13						
Kansas -----	501 935	108	360 453	85	141 481	265 935	88.7	2	2	2	1						
Kentucky -----	628 464	153	509 616	75	118 847	372 555	68.7	1	2	2	1						
Louisiana -----	682 748	164	625 422	31	57 325	688 189	-8	2	2	2	4						
Maine -----	187 286	100	(D)	10	(D)	72 411	158.6	5	(D)	(D)	(D)						
Maryland -----	985 311	199	823 795	71	161 516	397 173	148.1	2	2	2	3						
Massachusetts -----	515 233	285	493 595	48	21 638	259 999	98.2	3	3	3	8						
Michigan -----	886 949	325	821 820	26	65 128	381 669	132.4	2	2	2	(W)						
Minnesota -----	793 746	265	771 946	29	21 800	436 994	81.6	2	2	2	2						
Mississippi -----	326 181	107	253 354	47	72 826	224 979	45.0	3	4	4	5						
Missouri -----	615 772	262	545 465	49	70 306	305 954	101.3	2	2	2	3						
Montana -----	216 385	86	184 923	48	31 462	158 386	36.6	4	4	4	16						
Nebraska -----	217 169	89	177 716	37	39 453	130 380	66.6	4	5	3	3						
Nevada -----	304 094	36	260 654	29	43 440	179 664	69.3	1	1	2	2						
New Hampshire -----	168 189	99	143 319	36	24 869	105 268	59.8	6	5	5	30						
New Jersey -----	902 345	351	799 354	36	102 990	392 011	130.2	2	3	1							
New Mexico -----	359 065	76	246 482	48	112 582	267 990	34.0	1	2	2	(W)						
New York -----	1 770 316	615	1 646 068	35	124 248	890 320	98.8	2	2	2	(W)						
North Carolina -----	842 480	288	749 045	57	93 435	410 602	105.2	1	2	2	1						
North Dakota -----	162 497	73	125 621	41	36 876	126 554	28.4	3	4	4	2						
Ohio -----	1 130 000	400	1 099 662	34	30 337	587 536	92.3	2	2	2	4						
Oklahoma -----	380 357	144	299 562	45	80 794	300 786	26.5	3	4	1							
Oregon -----	351 618	213	327 376	32	24 241	243 444	44.4	4	5	2							
Pennsylvania -----	1 540 843	492	1 409 193	78	131 650	824 488	86.9	2	2	2	2						
Rhode Island -----	103 845	47	100 629	18	3 215	42 391	145.0	6	6	6	8						
South Carolina -----	477 678	150	423 752	74	53 926	(D)	(D)	4	4	4	9						
South Dakota -----	160 339	104	103 457	64	56 881	65 038	146.5	5	8	5							
Tennessee -----	663 695	196	620 815	59	42 879	308 212	115.3	2	2	2	4						
Texas -----	3 254 870	751	2 876 374	68	378 495	1 640 881	98.4	1	1	1	2						
Utah -----	271 274	85	223 888	24	47 386	191 168	41.9	2	3	2	2						
Vermont -----	80 397	22	27 299	*22	53 098	36 690	119.1	3	7	1							
Virginia -----	1 065 667	336	846 520	97	219 147	380 850	179.8	2	2	1							
Washington -----	524 858	224	492 903	94	31 955	296 658	76.9	3	3	3	30						
West Virginia -----	304 005	82	188 602	61	115 403	208 534	45.8	2	3	3	3						
Wisconsin -----	596 792	218	585 844	29	10 947	267 912	122.8	4	4	4	4						
Wyoming -----	202 552	94	153 745	51	48 806	165 756	22.2	2	3	2	2						

¹In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

Table 11. Dollar Value of Business Done for Establishments With Payroll by Kind of Business Activity: 1987 and 1982

[Thousand dollars. Detail may not add to total due to rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Primary and other kinds of business activities	Dollar value of business done ¹		Relative standard error of estimate (percent)	
	1987	1982	1987	1982
All kinds of business.....	35 528 035	19 035 172	(W)	(W)
General building contractor	273 063	409 978	2	2
Highway and street contractor.....	19 243 208	13 052 108	(W)	(W)
Paving contractor	8 877 237	2 168 606	1	1
Heavy construction.....	4 757 635	1 439 659	1	(W)
Heavy construction contractor.....	2 894 429	(NA)	1	(NA)
Excavating and earthmoving contractor.....	1 863 206	(NA)	1	(NA)
Subdividing land owned by others	36 942	131 167	17	3
Concrete construction	221 452	324 134	3	3
Excavation contractor, for buildings	165 463	471 162	3	1
Other construction activities	294 957	(S)	5	(S)
Manufacturing	519 006	361 563	1	(W)
Mining	143 004	82 568	1	2
Rental of construction machinery or equipment to others.....	142 125	81 677	2	1
Retail trade	97 934	170 177	2	1
Transportation	18 272	23 698	5	3
Wholesale trade	34 960	46 585	5	4
Other activities	390 364	272 090	1	5
Kind of business activity, n.s.k.	312 414	(S)	2	(S)

¹In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

Table 12. Selected Industry Ratios for Establishments With Payroll: 1987 and 1982

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Selected statistics	1987	1982	Relative standard error of estimate (percent) for 1987
AVERAGE PER ESTABLISHMENT			
Number of employees**	25.9	21.0	1
Number of construction workers	21.8	17.8	1
Number of all other employees	4.1	(NA)	1
Payroll, all employees	\$1,000..	640.9	394.5
Payroll, construction workers	do..	491.3	310.4
Payroll, other employees	do..	149.6	84.1
Dollar value of business done	do..	3 233.9	1 882.6
Value of construction work ¹	do..	3 109.5	1 795.8
Cost of materials, components, supplies, and fuels	do..	1 113.3	715.3
Construction work subcontracted to others	do..	562.3	313.5
Rental cost for machinery, equipment, and buildings	do..	114.6	61.5
Capital expenditures, other than land	do..	123.2	63.8
Gross book value of depreciable assets	do..	1 006.4	879.5
AVERAGE PER EMPLOYEE			
Payroll, all employees	do..	24.8	18.8
Dollar value of business done	do..	124.9	89.5
Value added††	do..	60.2	40.6
AVERAGE PER CONSTRUCTION WORKER			
Payroll, construction workers	do..	22.6	17.4
Value of construction work ¹	do..	142.9	100.7
Construction worker hours	1 836.0	1 767.2	(W)
AVERAGE PER OTHER EMPLOYEE			
Payroll, other employees	\$1,000..	36.3	(NA)
AVERAGE PER DOLLAR VALUE OF CONSTRUCTION WORK¹			
Payroll, all employees	.206	.220	(W)
Cost of materials, components, supplies, and fuels	.358	.398	(W)
Cost of construction work subcontracted to others	.181	.175	(W)
Rental cost for machinery, equipment, and buildings	.037	.034	1

¹In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

Table 13. Selected Industry Ratios for Establishments With Payroll by State: 1987

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Location of establishment	Average number of employees** per establishment	Payroll per employee (\$1,000)	Construction worker hours per construction worker	Value of construction work per construction worker (\$1,000)	Average per dollar of value of construction work			
					Payroll, all employees	Cost of materials, components, supplies, and fuels	Cost of construction work subcontracted to others	Rental cost for machinery, equipment, and buildings
United States -----	25.9	24.8	1 836.0	142.9	.206	.358	.181	.037
Alabama -----	28.0	19.3	1 967.1	123.4	.186	.424	.220	.026
Alaska -----	21.5	48.4	2 127.5	228.3	.250	.237	.173	.098
Arizona -----	29.6	25.3	1 760.7	164.3	.191	.367	.189	.039
Arkansas -----	22.3	19.3	1 921.2	118.9	.191	.434	.158	.027
California -----	22.3	33.3	1 668.3	195.3	.210	.321	.187	.065
Colorado -----	26.5	23.6	1 833.7	139.4	.207	.330	.192	.032
Connecticut -----	18.8	30.1	1 829.7	153.8	.231	.329	.143	.031
Delaware -----	41.6	21.7	1 769.5	127.6	.203	.387	.263	.033
District of Columbia -----	57.3	23.1	1 410.6	103.2	.261	.300	.194	.047
Florida -----	31.9	20.6	2 037.6	131.3	.188	.376	.188	.035
Georgia -----	25.0	19.9	2 044.1	132.2	.177	.411	.164	.020
Hawaii -----	28.5	35.4	1 758.0	189.6	.236	(D)	.227	.045
Idaho -----	16.6	23.8	1 737.2	121.8	.236	(D)	.216	.042
Illinois -----	26.9	30.4	1 746.9	164.2	.223	.311	.212	.041
Indiana -----	21.3	25.4	1 936.0	137.0	.222	.420	.117	.039
Iowa -----	19.4	23.1	2 043.2	150.8	.185	.390	.183	.022
Kansas -----	40.9	25.5	1 983.7	161.2	.190	.368	.220	.027
Kentucky -----	29.1	23.6	1 760.4	149.5	.185	.427	.158	.023
Louisiana -----	43.0	21.6	1 758.9	123.4	.206	.426	.164	.018
Maine -----	21.5	22.0	2 075.4	107.0	.245	.452	.101	.046
Maryland -----	34.5	23.9	1 697.3	139.6	.202	.343	.175	.050
Massachusetts -----	13.9	29.1	1 713.7	155.0	.229	.367	.144	.039
Michigan -----	17.3	27.1	1 809.5	181.6	.178	.346	.194	.029
Minnesota -----	29.3	28.7	1 887.8	183.7	.184	.309	.206	.042
Mississippi -----	31.5	17.3	1 935.3	104.3	.195	.383	.151	.027
Missouri -----	22.9	26.8	1 703.0	151.4	.213	.323	.182	.024
Montana -----	18.6	22.9	1 626.7	146.8	.186	.201	.135	.029
Nebraska -----	21.8	21.2	1 960.7	120.4	.207	.464	.138	.022
Nevada -----	53.5	37.9	1 879.1	174.2	.249	.345	.134	.069
New Hampshire -----	22.4	25.9	2 142.2	114.6	.273	.511	.108	.063
New Jersey -----	19.9	28.2	1 777.0	142.2	.236	.334	.135	.034
New Mexico -----	35.6	21.3	1 917.1	127.2	.200	.301	.249	.028
New York -----	23.3	29.1	1 780.3	141.0	.248	.357	.164	.042
North Carolina -----	29.2	18.0	1 864.7	113.2	.184	.413	.210	.032
North Dakota -----	21.7	22.5	2 057.5	130.5	.204	.361	.151	.045
Ohio -----	23.5	28.7	1 885.3	161.6	.212	.376	.186	.022
Oklahoma -----	20.7	19.1	1 902.4	125.4	.180	.376	.162	.040
Oregon -----	13.0	26.4	1 600.4	157.4	.208	.314	.181	.056
Pennsylvania -----	25.8	26.1	1 755.0	153.7	.200	.340	.176	.034
Rhode Island -----	16.3	26.6	1 919.9	164.6	.198	.170	.200	.027
South Carolina -----	30.7	16.6	2 074.9	117.7	.165	.352	.263	.021
South Dakota -----	11.2	21.7	1 797.8	120.5	.213	(D)	.139	.020
Tennessee -----	34.1	20.8	2 140.9	131.9	.185	.408	.210	.023
Texas -----	42.0	19.4	1 674.6	110.7	.201	.391	.172	.031
Utah -----	24.1	25.5	1 817.0	141.9	.216	.292	.165	.049
Vermont -----	14.0	23.4	1 973.1	124.7	.223	.294	.185	.062
Virginia -----	27.4	21.0	2 053.5	117.6	.213	.381	.149	.025
Washington -----	20.3	30.2	1 742.8	162.8	.230	.288	.197	.043
West Virginia -----	21.9	25.7	1 854.8	137.5	.220	.346	.148	.027
Wisconsin -----	20.0	29.2	1 854.2	179.3	.193	.337	.218	.027
Wyoming -----	18.8	22.0	1 918.8	111.9	.231	.312	.202	.059

APPENDIX A. Explanation of Terms

Construction—Is composed of three broad categories:

1. **New construction**—Includes the complete, original erection of structures and essential service facilities and the initial installation of integral equipment such as elevators, and plumbing, heating, and air-conditioning supplies and equipment.
2. **Additions, alterations or reconstruction**—Includes construction activity making structural changes to existing facilities. Generally, this type of activity is considered a capital investment in the property.
3. **Maintenance and repair**—Includes construction done for the purpose of upkeep of property rather than additional investment in the property.

Examples of the general distinction between maintenance and repair and reconstruction are provided here: roof repairs, including the replacement of shingles, gutters, etc., are classified under maintenance and repairs. A complete reroofing, however, is classified as reconstruction.

Number of establishments in business during year—Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments which were inactive or idle for the entire year were not included.

Proprietors and working partners—These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

All employees—Comprise all full-time and part-time employees on the payrolls of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not.

All employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

Construction workers—Includes all workers up through the working foreman level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment

operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category but are included in the "other employees" category.

Other employees—Includes employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

Construction worker hours—Includes the total number of hours worked by construction workers. Construction worker hours were collected for each of the four quarters of 1987.

Payroll—Includes the gross earnings paid in the calendar year 1987 to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if an unincorporated concern.

Employer costs for fringe benefits (supplemental labor costs)—Represents expenditures made by the employer during 1987 for legally required and voluntary fringe benefit programs for employees.

Legally required contributions—Include Social Security contributions, unemployment compensation, workman's compensation, and State temporary disability payments.

Voluntary payments—Include life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Dollar value of business done comprises the following detail:

Value of construction work done—Includes all value of construction work done during 1987 for construction work performed by general contractors, special trades contractors, subcontractors, and land development and improvement work. Included is new construction, additions and alterations or reconstruction, and maintenance and repair construction work. Also included is the value of any construction work done by the reporting establishments for themselves.

Builders were instructed to include the value of buildings and other structures built or being built for sale in 1987 but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease.

Establishments engaged in the sale and installation of such construction components as plumbing, heating, and central air conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators, etc., were instructed to include both the value for the installation and the receipts covering the price of the items installed.

Excluded was the cost of industrial and other specialized machinery and equipment which are not an integral part of a structure.

Land receipts—Includes receipts from the sale of land, whether held for sale or sold in connection with the sale of houses and other structures. It excludes the value of any improvements made to the land prior to the sale. (That value was to be included in the value of construction work done.)

Other business receipts—Includes business receipts not reported as value of construction work done or land receipts. The item includes business receipts from retail and wholesale trade, rental of equipment, manufacturing, transportation, legal service, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here.

Excluded was the value of construction work done and receipts from other business operations in foreign countries and non-operating income such as interest and dividends.

Net value of construction work—Derived for each establishment by subtracting the costs for construction work subcontracted to others from the value of construction work done. (For a further explanation see "Duplication in Value of Construction Work" section in the Introduction.)

Value added—Derived for each establishment, value added is equal to dollar value of business done, less costs for construction work subcontracted to others, and costs for materials, components, supplies and fuels. For SIC 6552 and SIC 1531, for which land receipts are significant, land receipts are also subtracted from dollar value of business done. (For a further explanation see "Duplication in Value of Construction Work" section in the Introduction.)

Selected costs—Represents the costs for materials, components, and supplies; costs for construction work subcontracted to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

Costs for materials, components, and supplies include:

- total costs to reporting establishments during 1987 for the purchase of all materials, components, and supplies, except fuels. (Supplies include expendable tools which are charged to current accounts.)
- freight and other direct charges should represent only amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company.
- costs for materials, components, and supplies used by the reporting establishments in the construction or reconstruction of buildings/structures for themselves which are chargeable to their fixed assets accounts, are included in this item as are costs for materials bought and resold to others.
- costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use.

Excluded from this item are:

- industrial and other specialized machinery and equipment, such as printing presses; computer systems; etc., which are not an integral part of a structure
- materials furnished to contractors by the owners of projects.

Costs for construction work subcontracted to others include:

- all costs during 1987 for construction work subcontracted out to other construction contractors.

Excluded from this item are:

- The costs to the reporting establishment for its purchases of materials, components, and supplies, provided to a subcontractor for his use. Such costs are reported under a separate category, "costs for materials, components, and supplies."
- costs for the rental of machinery or equipment.

Costs for selected power, fuels, and lubricants include:

- costs for fuels, lubricants, and electric energy purchased during the year from other companies, or received from other establishments of the company.
- costs for natural and manufactured gas, fuel oil, coal and coke products, etc.

Rental costs for machinery, equipment, and buildings—Includes all costs during 1987 for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It

excludes costs for the rental of land. It also excludes costs under agreements which, in effect, are conditional sales contracts such as capital leases. Such costs are included in "capital expenditures."

Selected purchased services—Includes all costs during 1987 for communication services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies, or from other establishments of the same company. It includes only the cost of that repair necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property, or the cost of adapting it for another use. Such costs are included in "capital expenditures".

Assets and depreciation—Refers to the original cost of all fixed tangible assets such as buildings and other structures (offices, shops, etc.); stationary machinery (generators, shop equipment, etc.); mobile machinery (tractors, trucks, etc.); and other equipment (office furniture and fixtures, etc.). Not included are such items as current assets, depletable assets, intangible assets, and nondepreciable assets.

Data on assets and depreciation were collected separately for: (1) buildings and other structures, additions, and related facilities; and, (2) machinery and equipment.

Respondents were also asked to report capitalized expenditures, depreciation charges, and the gross value of assets sold, retired, scrapped, destroyed, etc., during 1987.

Capital expenditures—Refers to all costs actually incurred during 1987 which were or would be chargeable to the fixed assets accounts of the reporting establishments and which were of the type for which depreciation accounts are ordinarily maintained. These expenditures cover the acquisition, the construction, and the major alteration of the reporting establishment's own buildings and other structures, whether purchased, constructed under contract, or constructed by the reporting establishment's own forces; and the acquisition of machinery and equipment.

If leasing arrangements met the criteria set down by the Financial Accounting Standards Board (FASB) for a capital lease, respondents were instructed to report the original cost or market value of that equipment or building as a fixed asset and capital expenditure if acquired during 1987.

If capital expenditures were not recorded directly at the establishment level but handled centrally at the company or division level, respondents were requested to report appropriate estimates for the individual establishments.

Inventories—Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others, but held by the reporting establishment.

Builders who built on their own account for sale were requested to report work in progress and finished units not sold for buildings and other structures built for sale.

Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

Ownership of construction projects—This item shows the distribution of the value of construction work done by ownership of the project, that is, Government owned or privately owned. This classification relates to the ownership of the projects or work undertaken during the construction phase. Government owned projects are shown separately for Federal, and State and local governments.

Value of construction work subcontracted in from others—Includes the value of construction work during 1987 for work done by reporting establishments for other construction contractors or builders. Establishments were asked to report the approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

Types of construction—This item provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in 1987. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function. For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose, i.e, office and residential, or commercial, they were to classify the building by major purpose.

In addition all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types. See the definition of "Construction" for the meanings of these terms.

Building construction:

- **Single-family houses, detached**—Includes all residential buildings constructed for one family use.
- **Single-family houses, attached (include town-houses)**—Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken wall from ground to roof.
- **Apartment buildings with two or more apartments**—Includes high-rise, low-rise, or any structures containing two or more housing units (excluding attached single-family houses and townhouses described above).
- **Hotels and motels**—Includes hotels, motels, and tourist cabins intended for transient accommodations.

- **Other residential buildings**—Includes dormitories, fraternity and sorority houses, nurses homes, and other nonhousekeeping residential structures.
- **Office buildings**—Includes all buildings which are used primarily for office space or for government administrative offices. Also included are banks or financial buildings which are three stories or more.
- **Other commercial buildings, such as stores, restaurants, and automobile service stations**—Includes all buildings which are intended for use primarily in the wholesale, retail, and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Industrial buildings**—Includes all industrial buildings and plants which are used to house production and assembly activities. Heavy industrial facilities such as blast furnaces, petroleum refineries, chemical complexes, etc., are not included in this category, but under nonbuilding construction.
- **Warehouses**—Includes commercial warehouses, cold storage plants, grain elevators, mini-warehouses, and other such storage buildings.
- **Religious buildings**—Includes all buildings which are intended for religious services or functions, such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings**—Includes all buildings which are used directly in administrative and instructional activities, such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories which are not a part of a manufacturing establishment, are also included.
- **Hospitals and institutional buildings**—Includes all buildings which are intended to provide hospital and institutional care, such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Farm buildings, nonresidential**—Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings**—Includes buildings which are used primarily for entertainment, social and recreational activities, such as sports arenas, theaters, music halls, golf and country club buildings, skating rinks, bowling alleys, and indoor swimming pools.
- **Other nonresidential buildings**—Includes nonresidential buildings which are not classified elsewhere, such as fire stations, prisons, civic centers, bus and air passenger terminals and hangars.

Nonbuilding construction:

- **Highways, streets and related work, such as installation of guardrails, highway signs, etc.**—Includes streets, roads, alleys, sidewalks, curbs and gutters, culverts, right-of-way drainage, erosion control and lighting. Also includes earthwork protective structures when used in connection with road improvements.
- **Outdoor swimming pools**—Includes wading pools and reflecting pools.
- **Recreational facilities**—Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Bridges and elevated highways**—Includes viaducts and overpasses; roads, highways, railroads, and causeways built on structural supports.
- **Tunnels**—Includes highway, pedestrian, and railroad tunnels.
- **Railroad construction**—Includes the construction of railroad beds, tracks, freight yards, and signal towers.
- **Subway construction**—Includes urban mass transit subway systems above or below ground.
- **Dam and reservoir construction**—Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Marine construction**—Includes dredging, underwater rock removal, breakwaters, navigational channels, jetties, and locks.
- **Harbor and port facilities**—Includes docks, piers, and wharves.
- **Conservation and development construction**—Includes land reclamation, irrigation projects, drainage canals, levees, and flood control projects.
- **Power and communication transmission lines, towers, and related facilities**—Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, electric light and power facilities.
- **Power plants, except nuclear**—Includes electric and steam generating plants.
- **Power plants, nuclear**—Includes atomic energy plants, and nuclear reactors.
- **Sewers, sewerlines, and related facilities**—Includes sanitary and storm sewers, and related facilities.
- **Sewage treatment plants**—Includes sewage treatment and waste disposal plants.
- **Water mains and related facilities**—Includes water supply systems and related facilities.

- **Water treatment plants**—Includes water filtration and water softening plants.
- **Pipeline construction other than sewer or waterlines**—Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.**—Includes coke ovens, and mining appurtenances such as tipples and washeries.
- **Other nonbuilding construction**—Includes all types of nonbuilding construction, not included elsewhere.

APPENDIX B.

Standard Industrial Classification Titles for Industry Groups and Industries

SIC code	Industry titles	SIC code	Industry titles
15	BUILDING CONSTRUCTION—GENERAL CONTRACTORS AND OPERATIVE BUILDERS	17	CONSTRUCTION—SPECIAL TRADE CONTRACTORS—Con.
152	General Building Contractors—Residential Buildings	173	Electrical Work Special Trade Contractors
1521	General Contractors—Single-Family Houses	1731	Electrical Work Special Trade Contractors
1522	General Contractors—Residential Buildings, Other Than Single-Family	174	Masonry, Stone Work Tile Setting, and Plastering Special Trade Contractors
153	Operative Builders	1741	Masonry, Stone Setting, and Other Stone Work Special Trade Contractors
1531	Operative Builders	1742	Plastering, Drywall, Acoustical, and Insulation Work Special Trade Contractors
154	General Building Contractors—Nonresidential Buildings	1743	Terrazzo, Tile, Marble, and Mosaic Work Special Trade Contractors
1541	General Contractors—Industrial Buildings and Warehouses	175	Carpentry and Floor Work Special Trade Contractors
1542	General Contractors—Nonresidential Buildings, Other Than Industrial Buildings and Warehouses	1751	Carpentry Work Special Trade Contractors
16	HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION—CONTRACTORS	1752	Floor Laying and Other Floor Work Special Trade Contractors, Not Elsewhere Classified
161	Highway and Street Construction, Except Elevated Highways	176	Roofing, Siding, and Sheet Metal Work Special Trade Contractors
1611	Highway and Street Construction Contractors, Except Elevated Highways	1761	Roofing, Siding, and Sheet Metal Work Special Trade Contractors
162	Heavy Construction, Except Highway and Street Construction	177	Concrete Work Special Trade Contractors
1622	Bridge, Tunnel, and Elevated Highway Construction Contractors	1771	Concrete Work Special Trade Contractors
1623	Water, Sewer, Pipeline, and Communications and Powerline Construction	178	Water Well Drilling Special Trade Contractors
1629	Heavy Construction, Not Elsewhere Classified	1781	Water Well Drilling Special Trade Contractors
17	CONSTRUCTION—SPECIAL TRADE CONTRACTORS	179	Miscellaneous Special Trade Contractors
171	Plumbing, Heating, and Air-Conditioning Special Trade Contractors	1791	Structural Steel Erection Special Trade Contractors
1711	Plumbing, Heating, and Air-Conditioning Special Trade Contractors	1793	Glass and Glazing Work Special Trade Contractors
172	Painting and Paper Hanging Special Trade Contractors	1794	Excavation Work Special Trade Contractors
1721	Painting and Paper Hanging Special Trade Contractors	1795	Wrecking and Demolition Work Special Trade Contractors
		1796	Installation or Erection of Building Equipment, Special Trade Contractors, Not Elsewhere Classified
		1799	Special Trade Contractors, Not Elsewhere Classified
		6552	LAND SUBDIVIDERS AND DEVELOPERS, EXCEPT CEMETERIES

APPENDIX C.

Geographic Divisions and States

NEW ENGLAND STATES

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

MIDDLE ATLANTIC STATES

New Jersey
New York
Pennsylvania

EAST NORTH CENTRAL STATES

Illinois
Indiana
Michigan
Ohio
Wisconsin

WEST NORTH CENTRAL STATES

Iowa
Kansas
Minnesota
Missouri
Nebraska
North Dakota
South Dakota

SOUTH ATLANTIC STATES

Delaware
District of Columbia
Florida
Georgia
Maryland

SOUTH ATLANTIC STATES—Con.

North Carolina
South Carolina
Virginia
West Virginia

EAST SOUTH CENTRAL STATES

Alabama
Kentucky
Mississippi
Tennessee

WEST SOUTH CENTRAL STATES

Arkansas
Louisiana
Oklahoma
Texas

MOUNTAIN STATES

Arizona
Colorado
Idaho
Montana
Nevada
New Mexico
Utah
Wyoming

PACIFIC STATES

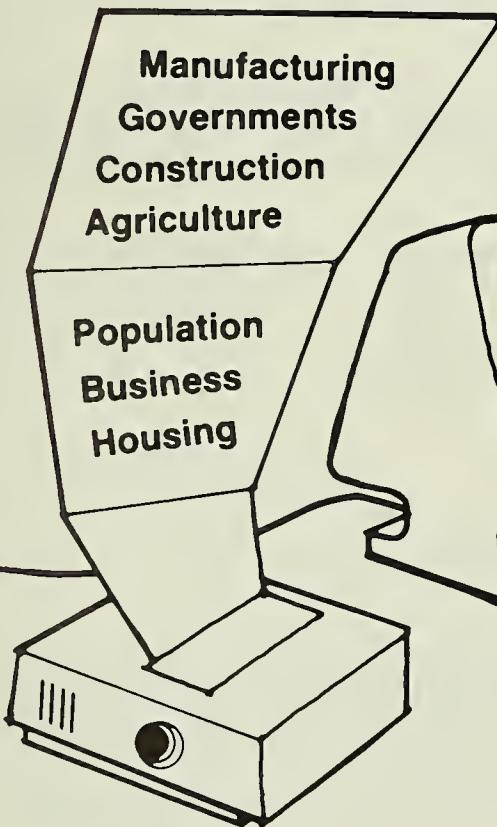
Alaska
California
Hawaii
Oregon
Washington

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PUBLICATION PROGRAM

1987 CENSUS OF CONSTRUCTION INDUSTRIES

The Census of Construction Industries is taken once every 5 years. The census covers all establishments engaged in construction, including:

- Building contractors
- Heavy construction contractors
- Special trade contractors (including plumbers, carpenters, painters, electricians)
- Land developers and subdividers

Data products in the Census of Construction Industries are issued in 4 publication series and in 3 other media:

- Printed reports [P]
- CD-ROM [C]
- Computer tape [T]
- Highlights online [+]

Preliminary Industry Series (CC87-I-1(P) through CC87-I-28(P))

(Available November 1988 through May 1989) [P]

Twenty-seven separate industry reports and a United States summary report, providing national statistics for establishments with payroll. Statistics shown for 1987 include:

- Number of establishments
- Number of employees
- Payroll
- Hours worked
- Value of construction work done, by type of structure
- Selected operating costs

Final Industry Series (CC87-I-1 through CC87-I-28)

(Available June 1989 through November 1989) [P] [C] [T] [+]

Twenty-seven separate industry reports and a United States summary report, providing statistics for the Nation and individual States on establishments with payroll. These reports update figures from the preliminary industry series (employment, payroll, value of construction, etc.) and provide measures of the following:

- Capital expenditures
- Inventories
- Industry profiles
- Assets
- Depreciation
- And much more

Geographic Area Series (CC87-A-1 through CC87-A-10)

(Available January 1990 through March 1990) [P] [C] [T] [+]

Nine reports on the construction industries, representing each census geographic division, and a United States summary report. Regional reports provide detailed data for States and metropolitan statistical areas.

Subject Report—Legal Form of Organization and Type of Operation (CC87-S-1)

(Available May 1990) [P]

One report providing selected national statistics for each industry by legal form of organization and type of operation. This report includes data for establishments with and without payroll. Data in this report include—

- Employment
- Payroll
- Value of construction work done
- Selected operating costs

OTHER ECONOMIC CENSUSES REPORTS

The Census of Construction Industries is part of the 1987 Economic Censuses. These are conducted at five-year intervals in years ending in 2 and 7 and consist of seven separate censuses:

- Census of Retail Trade
- Census of Wholesale Trade
- Census of Service Industries
- Census of Transportation
- Census of Manufactures
- Census of Mineral Industries
- Census of Construction

...plus several related programs: enterprise statistics; information on minority-owned and women-owned businesses; and the Census of Outlying Areas, including separate economic censuses of Puerto Rico and other outlying areas. The Census of Agriculture and Census of Governments are conducted separately.

HOW TO ORDER DATA PRODUCTS

Order forms for the specific reports and other data products may be obtained from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, DC 20233. If you have any questions, call Census Customer Services 1-(301)-763-4100.

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